Language, Discipline or Task? A Comparison Study of the Effectiveness of Different Methods for Delivering Content-based Instructions to EFL Students of Business Studies

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Abstract

This research aims to conduct a comparison study of the effectiveness of different CBI (content-based instruction) methods delivered to ESL students of business studies in order to investigate the interactions between different aspects of academic literacies, identify the strengths and weaknesses of different CBI methods, explore students' perceptions and learning experience of the CBI programme under different types of instructions, and provide some pedagogical implications for CBI programmes.

Some EAP (English for Academic Purposes) courses were criticised for their overemphasis on the general 'academic core' rather than the disciplinary generic feature, in spite of using subject content as a vehicle of language. By contrast, numerous immersion programmes which adopted the sheltered model were also accused of insufficient language development and difficulty in applying theory to problem-solving, though language learning was considered subconscious acquisition. The latest movement of learner-centred and task-based teaching was claimed to be the most effective instructional approach, because it may fill the gap between language instruction and discipline instruction, promote the advancement of critical and analytical thinking, and facilitate the development of diverse academic abilities in a holistic and collaborative manner. Consequently, language, disciplinary knowledge and problem-solving skills have become three major academic domains and their interrelationships are worthy of investigation.

The basic strategy for this research includes delivering three different CBI methods to three groups, administering eight hybrid post-tests after each teaching session to examine students' academic learning outcomes, and holding three blocks of semi-structured interviews to explore students' learning experiences with different CBI interventions. The post-tests results were analysed using correlation test and MANOVA. Thematic content analysis was used to analyse the interview data.

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Abbreviations

Acad. – Overall academic performance
ACTFL – The American Council on the Teaching of Foreign Languages
ANOVA – Analysis of Variance
BEC – Cambridge Business English Certificate
BICS – Basic Interpersonal Communication Skills
Bus. – Business knowledge
CALLA –The Cognitive Academic Language Learning Approach
CALP – Cognitive Academic Language Proficiency
CBI – Content-based Instruction
CET – College English Test
CLIL – Content and Language Integrated Learning (Europe)
CLIP – Content and Language Integration Project (UK)
DB – the Discipline-based Group
DI – the Discipline Instruction
EAP – English for Academic Purposes
EFL – English as a Foreign Language
EGBP – English for General Business Purposes
EOP –English for Occupational Purposes
ESBP – English for Specific Business Purposes
ESL – English as a Second Language
ESP – English for Specific Purposes
FLAC – Foreign Language Across the Curriculum
GSEEE – the Graduate School Entrance English Examination
ILR – Interagency Language Roundtable
LAD – Language Acquisition Device
Lang. – Language literacy
LB – the Language-based Group
LCT – Language-Content-Task
LI – the Language Instruction
MANOVA – Multivariate Analysis of Variance
NMET – the National Matriculation English Test
NMET – the National Matriculation English Test
PETS – the China Public English Test System
PS – Problem-solving Skills
SLA – Second Language Acquisition
TB – the Task-based Group
TBLT –Task-based Language Teaching
TCA –Thematic Content Analysis
TEM – Test for English Majors
TI – the Task Instruction
VESL – Vocational English as A Second Language

Statement of copyright

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Chapter I Introduction

There are three football coaches. The first coach focuses on Psychomotor skills his players need, hence his main training measure is to help players run faster, leap higher, and build stronger muscles. The second coach insists that the skills for playing football are most important, hence he emphasises how to pass the ball, how to shoot, how to dribble and so on. The third coach believes that both of these approaches have some good features, hence he analyses what abilities and skills the players would use in the match, and designs practical games to improve their diverse abilities and skills. Which coach will be the most successful?

This study draws on my experience of learning English as a student and teaching Business English as a college teacher. I spent two years in primary school and six years in secondary school learning English as a foreign language by practicing pronunciation, memorising vocabulary, understanding grammar, and reciting texts. After this drill-based study of English, I entered university to undertake an undergraduate programme of English and Business which consisted of a wide range of English-based courses including intensive reading, extensive reading, writing, American and British literature and culture, translation, interpretation, and linguistics. We also studied a block of business-related subjects such as international trade, finance, marketing, management, and economics which were all taught in Chinese.

After completing my first degree, I worked as a lecturer of Business English at a college in China. My students ranged from general English students without any business backgrounds to business students who are required to acquire academic and professional business knowledge and skills through the medium of English. The most significant challenge facing these students is how to learn English most effectively when it is used as the vehicle to convey business knowledge and skills. Students and my colleagues often complained about the difficult lessons, in which teachers need to teach not only the content of the unit but also English literacy, vocabulary and

grammar. Even worse, students' demand for the mastery of business knowledge was unlikely to be met because most teachers lack the knowledge and understanding of how to teach business subjects in English.

In order to improve my knowledge of business and Business English, after teaching in that college for three years I chose to enroll in a Masters programme in Financial Management at Durham Business School in the UK. Before this postgraduate business programme, I participated in a one-month pre-sessional course in English for Academic Purposes to familiarise myself with academic discourse in the English-speaking country, during which time I felt confident about writing an essay in an impersonal style, scanning an article to tracing main ideas, analysing the structure of a complex sentence, and making a thematic oral presentation. However, my supposed competence was less likely to meet the challenge from the outset of the Masters programme. The linguistic demands of the lectures and readings in highly-specialised business-related subjects exhausted my language skills, because I lacked the vocabulary and disciplinary knowledge to tackle the complex economic and financial texts. Consequently, my academic achievement on this Masters programme was not as successful as expected.

My learning and teaching experience of English implied that the deficits in language competence in specific disciplinary areas were likely caused by traditional English courses. These gaps in language instruction stimulated the SLA (Second Language Acquisition) community to develop a number of language teaching methodologies. CBI (content-based instruction) became one of the methodologies with the goal of elevating communicative competence in a specified academic disciplinary area by teaching the language predominantly used in oral and written texts within this content area. In this community, a wide array of CBI models has arisen to cater to different pedagogical purposes in different educational settings. Moreover, several recent models have been developed based on the incorporation of academic language knowledge and proficiency, specified disciplinary knowledge and diverse

problem-solving skills in the subject into one programme. This case scenario which interests me relates to three options assimilated in the above analogy; these are as follows:

The language-based teaching, adopted by the first coach in the example, considers the generalised communicative literacies in academic discourses as the essential core. The discipline-based teaching, applied by the second coach, stresses the importance of academic development in the disciplinary area through immersion learning in English contexts. The task-based teaching, undertaken by the third coach, attributes students' academic progress to the process of exploring meanings and solving problems. The question that arises is: Which CBI method would deliver the most successful students' academic achievement?

1.1 The cross-disciplinary development in higher education

In the last few decades, the world has experienced dramatic changes in all aspects of life, profoundly influenced by innovation in science and technology, the globalisation of economy and finance, the digitalisation of communication and information, and the expansion of trade and commerce. As incubators for new knowledge and creative ideas, institutions of higher education have become acclimatised to these global trends by designing and offering cross-disciplinary programmes. However, each discipline has its own conventions, assumptions, theories, and epistemology (Wilkinson 2004). The incorporation of different disciplines refers to the reforms of academic literacies including traditional language literacy, literacies of disciplinary conventions, information and computer-based literacy, visual and design literacy and numeric literacy (Bhatia, 2004).

Moreover, the globalisation and internationalisation of education increase the extensive student and staff exchanges and generate many joint programmes across the institutions in different countries. In order to achieve globally acknowledged and competitive qualifications, students who are financially sponsored by organisations

or families follow these trends and look for those globalised suitably programmes at home and abroad. An increasing number of students are pursing such full-time degree-granting programmes in foreign countries through the medium of another language. Consequently, student mobility and institutional competition across national boundaries present a wide range of challenges to universities and colleges, from conflicts of different cultures to the quality assurance of university programmes. Among these challenges, one of the most important issues is to explore the nature of the relationship between the language content and educational content in multidisciplinary contexts, and to investigate its impact on the methodology of programmes that integrate language with content-based literacy.

1.1.1 The rising demand for business studies among international students

Business schools in English-speaking countries (e.g. USA, Canada, UK, Australia, New Zealand) have had great success over the past two decades, in offering a wide range of degree-granting programmes to international students. Every year a large number of overseas students come to these countries enrolling in undergraduate or graduate courses such as economics, finance, investment, banking, accounting and management in order to obtain the credential to enhance their careers. For instance, 21.1% of the overall foreign students coming to the US chose to study business in 2009/2010 (Thunderbird Website, 2011).

Economics and finance, together with technology, comprised the two principal areas in which Chinese overseas students studied abroad in recent years, according to China's Ministry of Education at 2011 China's Forum for Overseas Study (http://edu.sina.com.cn). The rising demand for business personnel in China is inextricably influenced by the rapid development of its economy and international trade. China ranked first in terms of total volume of foreign trade in 2010, and reached the second place with regard to total economic quantity in 2011. In response to China's increasingly active participation in the global economy and international cooperation (Pang, Zhou & Fu, 2002), business studies through the medium of

English have drawn much attention in the international educational context. In addition, the recruitment of international students for business studies at many universities has made business education become one of the lucrative businesses and significant exporters in some countries such as UK (Pfeffer & Fong, 2002). Accordingly, competition for admission to business schools has become stronger than ever before.

1.1.2 The privileged status of English language in higher education

Knowledge constructed in English currently holds a privileged status, despite the fact that a great deal of academic work in languages other than English also makes an incalculable contribution to global social and economic development (Marginson & van der Wende, 2009). Ammon & Mcconnell (2002) asserted that English is widely recognised as a dominant language of teaching in higher education for the future. Coleman (2006: p.4) offered a vivid analogy between the global influence and wide adoption of English in higher education and the Microsoft effect: 'once a medium obtains a dominant market share, it becomes less and less practical to opt for another medium, and the dominance is thus enhanced'. English plays an irreplaceable role in global educational settings by facilitating global academic exchange, knowledge update and development, as well as international career opportunities and mobility (Montgomery 2004: p.1334). English has become the necessary language if students intend to prepare themselves for careers in the global context (Kruseman, 2003: p.7).

There is also a consensus among modern linguists that the bilingual and bicultural movement (Coleman, 2006) has created new generations who adopt their local language for identity and culture, and English for international, formal and practical communication. In the past few years, English-medium course development at tertiary levels has received wide and abundant attention in European countries (Coetzee, 2004), which further signifies that English seems to have become the language of higher education. Predominant adoption of English with ubiquitous Anglo-American standards in higher education requires non-native international

students to understand the academic discourse in the English-speaking community. English for Academic Purposes (EAP) programmes in the UK and other English-speaking countries, for example, aim at assisting international students to learn how to make a spoken presentation or how to write an essay.

1.1.3 The impact of interdisciplinary development on academic literacies

In response to the present-day interdisciplinary and multidisciplinary movement, universities and colleges have been aware of the need to renegotiate and reconstruct academic programmes by cutting cross the disciplinary boundaries to merge multiple specialities into new disciplinary variations. Confronted with these interdisciplinary offerings, students are required to develop a wide range of academic literacies in order to interact effectively and efficiently with different disciplines. Some joint programmes such as Accounting and Law, Business and French, Electronic Commerce, Finance and Mathematics, Mass-media Communication, Biology and Chemistry Technology, require the ability to handle the academic discourse not only related to the parent discipline but also pertinent to other disciplines (Bhatia, 2004).

However, Bhatia (2004) further argued that, a lack of overlapping disciplinary cultures and the conflicts between different subjects make the previous language courses for communicative purposes inadequate in terms of contributing to the pedagogical effectiveness of multidisciplinary literacy practices in classrooms. These second language learners, albeit with a certain level of general communicative competence, are required to develop more comprehensive and diversified literacies such as the disciplinary expertise and analytical skills to deal with the complexity and heterogeneity across different disciplinary cultures. Although there has been an increasing awareness of genre and disciplinary analysis in academic discourses, the danger of current consistently agreed ‘academic literacies’ lies in their overreliance on the ‘common core’ which is thought to be universal and transferable across disciplines. This single and uniform academic core, as Bhatia (2004) cited Hyland’s (2000: p.147) comment on the current writing programmes in the academy, leads to

the risk of camouflaging disciplinary variability and disguising academic writing as ‘naturalised, self-evident and non-contestable ways of participating in academic communities’.

The concern about disciplinary distinction in academic discourse has implications in the applied linguistics community in that language education needs to be pedagogically effective rather than pedagogically convenient. Although discipline-specific language courses have been advocated, given that the generalisation across genres and disciplines becomes increasingly problematic in traditional academic literacy programmes, the role of disciplinary variation still takes ‘a back seat’ (Bhatia, 2004, p.67). The generic overlaps found in textbooks, project reports, journal articles, essays, classroom notes, and examination papers across different disciplines are assumed to be unproblematic in most academic language courses. Consequently, this kind of one-size-fits-all ‘economical, convenient and cost-effective’ (Bhatia, 2004, p.73) language-based literacy practice takes a prevalent position across the institutions of higher education that prepare those second language learners for university academic studies. However, differences in disciplinary culture range from specialised lexis and knowledge structures to forms of enquiry. These urge the language teaching community to investigate subject-specific communicative demands and devise more effective language programmes for specific disciplines.

1.1.4 Transferable skills and situated cognition

The development of students’ various transferable academic skills alongside disciplinary knowledge has been highlighted in higher education across the world to improve graduates’ employability (Raybould & Sheedy, 2005; Atlay & Harris, 2010). Transferable skills refer to the skills and abilities acquired from activities such as jobs, classed, projects, volunteer work, parenting, hobbies and sports that can apply to a variety of situations in life (www.leadingorgsolutions.com, 2009). In terms of study abilities and skills, Sternberg (1999) claims that the development of expertise –

metacognitive skills, learning skills, thinking skills, knowledge and motivation – may be transferable from one discipline to another, depending on interdisciplinary relationships.

For example, analytical skills are found to denote generality across different disciplines (Jensen, 1998), whereas disciplinary creative and practical skills are correlated modestly (Sternberg & Lubart, 1996). In other words, as argued by Stenberg (1999), these transferable skills are, to a large extent, discipline specific, though they are fully interactive in teaching-learning contexts. Similarly, when generalised academic English skills (e.g. note-taking, summary-writing and reading comprehension) are introduced to prepare students for any academic class, disciplinary differences in conventions significantly influence the content and organisation of English distinct from one discipline to another (Bhatia, 2004; John, 1988). All of these concerns call on researchers, teachers and syllabus designers to further examine the transferability between a diversity of academic skills within and across disciplines.

In addition, situated cognition suggests that construction of knowledge should occur in social, cultural and physical contexts (Greeno, 1989; Greeno & Moore, 1993). Learning is thought to be an individual's increasingly effective performance which is co-determined by the agent and the context across situations rather than an accumulation of knowledge. Research in situated cognition helps to develop the understanding of embodied language, memory and the representation of knowledge (Barsalou, 2007). Situated cognition focuses on how people negotiate meanings through interactions within communities of practice (Brown & Duguid, 2000). Recently, theorists intend to understand the connections between situated cognition and new literacies (Gee, 2010), by exploring how individuals learn through the experiences influenced by the communicative tools, technologies and languages used within collective socio-cultural groups.

Anderson, Reder and Simon (1996) elucidated four claims of situated learning: activity and learning are greatly affected by the specific situations in which they happen; knowledge does not transfer between tasks; teaching abstractions seems to be ineffective; instructions should be given in complex social contexts. Meanwhile, they pointed out four parallel arguments from cognitive perspectives: to what extent learning is bound to context relies on the content and ways of learning; initial practices and similarities of tasks may promote transferability; using abstract instructions can be effective in combination with concrete examples; evidence shows that individual learning of specific skills can be successful. Therefore, they called for further research *in situ* into 'circumstances that determine when narrower or broader contexts are required and when attention to narrower or broader skills are optimal for effective and efficient learning' (p. 10). Mixed methods and qualitative methodologies are considered by researchers to reflect assumptions that knowledge is constructed in specific contexts with situational affordances.

1.2 The Historic view of Business English

Business English has been developed from a growing area in English for Specific Purposes (ESP) in the last century (St. John & Johnson, 1996) to a lingua franca in international business context over the past decade (Seidlhofer, 2004). Nickerson, in her introductory paper to the 2005 Special Issue of *ESP Journals* on Business English, reiterated the uncontroversial and invincible role that English plays in international business arena, though English is likely to be eventually superseded by other languages such as Chinese, Hindi/Urdu or Arabic in at least fifty years (Graddol, 2004). During the past half a century, Business English has drawn the increasing interest of researchers and practitioners, and its demand has ascended fast in the context of burgeoning economic globalisation and expanding business exchanges.

1.2.1 The proliferation of Business English terms

In the overall context of *ESP*, Business English gradually evolved from *EAP* and *EOP* (English for Occupational Purposes), whose important elements can be seen from the early work of English for Business and Economics (Hutchinson & Waters, 2002), to *EGBP* (English for General Business Purposes) and *ESBP* (English for Specific Business Purposes). *EGBP*, in Western Europe, according to St. John (1996), albeit set in business contexts, is similar to those extensive EFL courses for pre-experienced learners with open registration.

By contrast, *ESBP*, targeting those post-experience adults, offers some company-based intensive courses. Business English terms such as 'professional', 'commerce', 'management', and 'executive English' proliferated and were used alternately based on different purposes and jobs. For example, the terms 'commerce' and 'commercial' were frequently used in the 1960s and 1970s to meet the demand of written communication pertaining to the sprouting import and export industry. After that, a series of Business English courses such as English for Secretaries manifested a shift from the written communication to the spoken communication. St. John (1996) commented on this proliferation of terms and pointed out that Business English course providers, due to a lack of potential customers, need to distinguish their products and services from those of others with a unique 'brand name' to find a specialist niche in a competitive market.

1.2.2 Specialised Vocabulary

Dating back to the early stages of Business English teaching in the 1960s and 1970s, general English plus business specialised vocabulary and terminology (Ellis & Johnson, 2000) were seen as a dominant approach. This approach aims to develop vocabulary in the context of written text or conversation regarding a specific business topic such as currency exchange in banking. Reading comprehension, vocabulary exercises and drilling of sentence structures constituted the major tasks of this kind of Business English programme. It is assumed in this approach that the

learners' English proficiency has already reached intermediate level but they have little knowledge about the subject matter. There were still some business vocabulary books published in recent years (Mascull, 2004; Collins Cobuild, 2004) with the underlying corpus-based research, because some researchers still attributed the variation of disciplinary knowledge to the differentiation of specialist lexis (Bhatia, 2004).

However, the early discipline-specific courses based on teaching technical terminology mainly offered psychological and face validity, but overlooked or underplayed the cross-disciplinary variations in a variety of genres in academic discourses. Besides, as argued by Ellis and Johnson (2000), this approach did not take into account the development of language skills during peoples' interactions in the real business world.

1.2.3 The skills of business communication

Taking into account the importance of communication skills in the business context, Business English put more emphasis on the development of language proficiency with structural/audio approach including BBC/OUP video, structural and gambit drills, conversation exercises, and role imitations (Ellis & Johnson, 2000). Drummond's *English for Business*: *Bellcrest File* published in 1972 was regarded as a milestone which reflected this approach in the evolvement of Business English. It also can be seen from the publications (e.g. the Prentice-Hall *Professional Reading Skills Series*) in this phase that the focus of teaching Business English shifted from learning business terminology to building skills, encouraging the processing of information and developing a broad base (St. John, 1996). Similar to the specialised vocabulary teaching approach, according to Ellis and Johnson (2000), this kind of course still assumes that learners have already mastered fundamental knowledge of English grammar, but they need to continue to acquire communication skills effectively in practical business situations.

1.2.4 'Gambits' as formulaic language

In the mid-1970s and 1980s, some 'gambits' were drawn from the Keller's (1981) corpus in Canada, focusing on functional-oriented formulaic language such as making recommendations, giving opinions, and showing agreement (Ellis & Johnson , 2002). In Keller's (1981) psycholinguistic approach to routines, he defined gambits as '[...] a certain set of signals in the conversationalist's speech, used to introduce level shifts within the conversation, or to prepare listeners for the next turn in the logical argument' (p.94). A core of business communication skills including telephoning, socialising, corresponding, writing report were crystallised from analysing samples of business texts. In the original edition of the course book *Functioning in Business* (Knowles & Bailey, 1987), for example, listening conversation practice on cassette mainly centred on the language exemplifications for making appointments, confirming plans, introductions, and business dinners. The subsequent exercises were based on the functional drills and the role play.

However, as pointed out by St. John (1996), there appeared to be no easily definable lexical phrases or gambits which were supposed to be taught for each business communication skill, because little overlap across the different texts for a certain professions could be identified. For instance, some sixty different expressions were found to depict the upward and downward movement of prices in business and economics (Irgl, 1986). However, whether some glossaries or phrases are most frequently used in the specific business situation still needs further investigations.

1.2.5 Case study method

The incremental demands for company training programmes during the 1980s gave rise to an overriding feature of business English for job-experienced learners: the need to be pragmatic. The case study method, which was originally used to teach students how to analyse business problems in meaningful and practical activities at Harvard Business School, shed light on its applicability in ESL/EFL classroom, owing to its effectiveness to fill in the gap between English language and business

content instruction by teaching business concepts, situational analysis and problem solving skills (Groose, 1988). As Esteban & Cañado (2004) summarised in his recent study, many researchers (Piotrowski, 1982; Lee, 1983; Miles, 1987; Westerfield, 1989; Boyd, 1991; Patterson, 1994; Kuntz & hessler, 1998; Jackson; 1998) addressed and explored the case study method from various perspectives including its definitions, theoretical and practical importance, types as well as advantages and disadvantages in applications.

The benefits of the case study method, as elaborated by Esteban & Cañado (2004) elaborated, were manifested in light of its flexibility and adaptability to a wide range of educational settings. They further argued, this teaching approach provided non-native learners with opportunities to improve their English proficiency in sheltered practices offered by genuine business materials, and it was likely to develop their communication skills. For example, the case study approach cultivates critical thinking, inferring or synthesising information in a holistic manner. It nurtures interpersonal, teamwork, leadership and managerial skills by accomplishing a task in a collaborative way with active, responsible, independent and reflective engagement. It fosters analytical, problem-solving and decision-making skills by distinguishing fact from opinion, relevant from irrelevant data, and important from unimportant information. All of these benefits make the case study encouraging and interesting.

The drawbacks of the case study method also drew researchers' attention when its strength was widely recognised. Esteban & Cañado (2004) claimed that, this method was regarded as a difficult instructional strategy to use in practice. First, non-native learners face a number of language difficulties and a large amount of work in the classroom. For example, EFL students are required to read lengthy articles with myriads of new vocabularies and expressions and participate in group discussions with accurate and fluent speech. Second, there are not many commercially available business case study materials. As a result, the instructors have to design

pedagogically appropriate materials on their own in order to prevent cases from becoming exchanges of personal views.

Third, the transformation of the teacher's role from an instructor to a facilitator or consultant may lead to many uncertainties when the responsibility of learning is handed over to students. For example, the teacher may no longer provide right answers or solutions, but students still lack the relevant business knowledge and expertise to handle the issue in the discussions. It is also difficult to ensure that each participant contributes equally to the collaborative classroom task, and the efforts they exert to complete the task are less likely to be measured persuasively in any form of assessment. Fourth, the physical setting (Welty, 1989) also has a significant impact on the effectiveness of delivering the case study method. A U-shape arrangement may facilitate mutual visual contact and strengthen leader's control. Tables for each group may reduce the embarrassment between the participants. Swivel chairs may favour the freedom of interactions. He concluded, all of these features of physical environment are vitally important, albeit difficult to be realised in reality sometimes.

As argued by Esteban & Cañado (2004), it is noted that this approach takes comparatively more time to cover the content knowledge than lectures. Besides, the extra work on language instruction is needed after class to help students surmount language barriers involved in case studies. Nevertheless, all of these disadvantages are not likely to undermine the applicability of case study method if they are handled with 'creativity, ingenuity, hard work and perseverance' (Jackson, 1998: p.159 cited by Esteban & Cañado, 2004).

1.3 Teaching of Business English in China

China's Open Door Policy towards market economy, its accession to WTO, and the hosting of Beijing Olympic Games over the past three decades had a significant influence on the prevalence of English as a global language in this country. According to Cheng (2008), English has been legitimated as a compulsory subject in

Grade 3 at all primary schools since the middle-1990s. At the same time, all colleges and universities subordinated to China's Ministry of Education were instructed to use English as the main teaching language in a wide range of disciplinary areas such as foreign trade, economics, law, information technology, biotechnology, and new-material technology.

This CBI orientation in the university, as argued by Nunan (2003), has an ascending impact on the English teaching at secondary levels. Some top schools in cosmopolitan cities have started to offer science and mathematics courses in English. In most English departments at colleges and universities in China, there has been a markedly growing trend of interdisciplinary support between English and other subjects such as law, tourism, science, and commerce. In addition, Nunan (2003) further elaborated, the latest university syllabi based on functional/notional English emphasised the communicative language teaching and the leaner-centred approach. However, Chan (2001) pointed out that a lack of qualified teachers became the main impediment to implement of this policy.

1.3.1 Business English programmes at universities in China

The teaching of Business English can be traced back to the early 1950s, when the College for Senior Cadres of Commence was set up in Beijing (Chen, 2001). The primary objective of the 'English Translation' programme offered by this college was to train students to be translators and interpreters for foreign trade, mastering a foreign language and having some comprehensive knowledge of trade techniques and policies. The core courses of these programmes included Correspondence for Foreign Trade, Oral English for Foreign Trade and Selected Readings on International Business and Economics from Western Papers and Journals. The textbooks used in these courses, as demonstrated by Zhang (2007), were written by experienced teachers or by a joint team of teachers and businessmen. Following the example of Correspondence for Foreign Trade provided by Wang (1997), he further elucidated the configuration of this course: the materials were adopted from the

procedures of foreign trade transactions in the business world such as establishing business relations, making enquiries, offers and counter-offers, applying for letters of credit, arranging for transportation and shipping; the lessons consisted some components such as glossary and jargon, translation of business sentences or terminologies and letter writing practices.

After that, other colleges and universities in China successively set up this kind of programs in the names of 'English Translation for Foreign Trade' in the 1950s and 1960s, 'English for Foreign Trade' in the 1970s and 1980s, 'English for International Trade' in the early 1990s, 'English for Economics and Trade' in the late 1990s, and 'English' from 2000 up to date (Zhang, 2007). It can be seen that there was a shift from the traditional foreign trade English to Business English, with the globalisation of China's economy and its rapid increasing demand for multi-talents. There have been over 800 universities and colleges in China offering Business English courses with a variety of degrees (Zhu & Liao, 2008) in addition to the literature and linguistics-oriented English programmes. For example, at the Guangdong University of Foreign Studies, the School of English for Business was established to offer Business English undergraduate and postgraduate programmes. The teachers were from the Faculty of English Language and Culture in alliance with the School of Law, and the School of International Trade and Economics. The university disciplinary courses were completely taught in English.

As Business English became increasingly popular in educational institutions in China over the last two decades, the unrelenting efforts have been made to keep the curriculum of Business English in correspondence with the disciplinary development and pedagogical movement in dynamic social and economic contexts. For example, the simultaneous mastery of subject knowledge and language skills was called for in a sound business English Curriculum (Wang & Xu, 1997; Chen, 1999; Zhang, 2007). For instance, according to Zhang (2007), the University of International Business and Economics incorporated some business subjects such as western economics and

business ethics into the programmes for students from English department. However, Zhang (2007) expressed his concern on the disengagement of business courses from language skills courses and pointed out that the latter overlooked the disciplinary context. As a result, those business tasks were implemented in an inadequately professional manner.

1.3.2 Mismatch of English tests and Business English

The English test has been considered an indispensible component of assessment across all levels of the Chinese educational system. As one of the three core subjects along with Chinese and mathematics, English is tested for students to enter junior and senior high schools as well as universities. Almost all the students in Chinese universities and colleges are required to take the college English course for at least two years irrespective of what programmes they study (Cheng, 2008). The CET4 (College English Test Band 4) Certificate is stipulated as one of the obligatory requirements to obtain a bachelor's degree in a policy of 'no CET4/6 certificate, no graduation diploma' (Pang, Zhou & Fu, 2002) in most Chinese universities. In addition to the NMET (the National Matriculation English Test) and CET, some others key English tests such as TEM (Test for English Majors) and GSEEE (the Graduate School Entrance English Examination) also exist in Chinese institutional settings.

The tests described above serve the purpose of measuring language proficiency. CET has been criticised by many researchers and teachers for its drawbacks such as the excessive use of multiple choice (Gu, 2005), a lack of accuracy to measure reading comprehension ability (Cheng & Gao, 2002), the incomplete assessment of students' English proficiency without a compulsory spoken English test (Gu, 2005), and overreliance on metacognitive strategy rather than students' basic language skills (Zhang, 2004). The comparison study of CET and TEM (Zhou, 2004) indicated a similarity in terms of test takers, test content and test scores. These tests appear to exclude the subject content knowledge and may not be considered a universal measure to evaluate students' learning outcomes of Business English.

In order to meet the needs of people seeking work and promotion opportunities in governmental, educational, scientific research, medical, financial, business and other public institutions (He, 2001), there are also some English tests apart from those in academic settings. PETS (the China Public English Test System), administered by the NEEA (National Educational Examinations Authority), aims to provide the assessment and certification of four communicative English languages skills at five levels of competence, and it is accepted by an increasing number of business and financial institutions as well as other organisations as a valid proof of English proficiency, according to Pang, Zhu & Fu (2002).

The BEC (Cambridge Business English Certificate) is another English programme introduced in 1993 by NEEA in collaboration with UCLES (the University of Cambridge Local Examinations Syndicate) to test English language ability in business contexts. There were three levels of the BEC: BEC Preliminary, BEC Vantage and BEC Higher. The BEC prepares those people pursuing success in the international business and commerce for better communication skills such as writing report or taking a telephone message. Similar to the tests in academic settings, these examinations still lay great stress on language proficiency, rather than the content knowledge and expertise in any specific business disciplines.

1.4 CBI and other language learning theories

Learning business disciplines in English does not simply imply changing the language instruction. Instead, it involves the deliberate tailoring of programmes that incorporate academic knowledge and language performance objectives (Wilkinson, 2004). The ESL/EFL community endeavours to find out most effective ways of teaching English in classrooms by struggling with sways of SLA theoretical pendulum between the structure/drill-based and meaning-based approach. Many current ESL/EFL teaching theories attempt to provide various methodologies to promote language acquisition in different professional and academic settings.

Workplace literacy programmes aim to meet the vocational language and professional skills demanded for job tasks. Whole language teaching, culture and literature teaching, and EAP target those students at different levels in educational institutions and help them improve academic language literacy. The importance of introducing content as the vehicle of developing English skills is raised in all these language teaching theories. ESP, from which Business English is originally developed, puts emphasis on learners' needs analysis and generic features of written discourses. By contrast, CBI for the purpose of integrating language learning and content learning makes the pedagogical inquiry into students' affective process, instructional strategies and classroom models, and focuses on the development of four basic language skills.

1.4.1 Structures or meanings?

There were no coherent language learning theories available to language teachers until psychology had been developed as a recognised discipline of scientific enquiry in the early twentieth century (Hutchinson & Waters, 2002). However, as pointed out by Long (2001), language teaching still suffers from impetuous sways of the pendulum of various learning theories and insufficient consistent empirical base for the classroom practice. He further argued that this vulnerability to language learning theories centred on a controversial issue of grammar in the communicative classroom: should a second language be taught as a wording system governed by lexico-grammar or as a meaning system to communicate concrete information such as history, physics, and culture?

1.4.1.1 Structure-based approach

Traditional grammar-based linguistics focuses on the analysis of the grammatical function of each word in the sentence to identify whether it is a subject, object, adverbial and so on. Structuralism describes the language in terms of syntagmatic structures which carry functions and notions, and it emphasises that the effective teaching and learning is based on the repetition of drills and transformations. These

traditional language teaching and learning theories enable EFL/ESL teachers to pay more attention to the forms of language such as phonemes, collocations, morphemes, and sentence patterns. Synthetic syllabi (e.g. lexical, structural and notional-functional), synthetic methods (e.g. grammar translation, audio-lingual and silent-way) and synthetic classrooms activities (e.g. explicit grammar rules, memorisation of short dialogues and error corrections) are normally used in this kind of classroom, according to Long (2001).

This approach derives from the behaviourist learning theory, based on students being expected to display language using a word or pattern, rather than communicating a meaning or message (Willis, 1996). Consequently, they fail to achieve an acceptable level of fluency and proficiency in the target language even after years of instruction (Skehan, 1996: 18). For example, the commonly used PPP instruction (presentation, practice and production) in Europe and Brazil, as illustrated by Shehadeh (2005), aims to help students automatise grammar and function, as well as reproduce the target language spontaneously and flexibly. However, the objective of final P- free production - is difficult to be achieved, because the forms are predetermined by the teacher, according to Willis (1996).

These structure-based approaches have also been criticised for several major drawbacks (Long, 2001): first, no needs analysis is conducted to identify the group needs, interests and learning styles preferences; second, the overemphasis on lexis and grammar often leads to language ‘usage’ rather than language ‘use’ in real life; third, a focus on structures overlooks the long-term accumulative and repetitive process in SLA; fourth, alienating students from the course design may lead to the fallacy that what students learn is what teachers teach; fifth, a focus on forms tends to make a dry lesson and reduces learners’ motivation and engagement; sixth, there is no substantial evidence supporting structure-based approach in language acquisition. Scattered grammar points and fragmented materials may not become a panacea in EFL/ESL learning, though the development of lexico-grammar helps learners make

sense of meanings. Therefore, an impetus from the emphasis on learner and learning process makes language teaching shift from structure-based to meaning-based approach.

1.4.1.2 Meaning-based approach

Different from structure-based approach which considers the learner to be a passive receiver of information, the meaning-based method stems from cognitive theory which regards the learner as an active processor of information (Ausubel et al, 1978). Learning, in this sense, requires the learner to apply their mental powers to make sense of the data they see, feel and hear, and the effective learning takes place only when the information conveyed is meaningful to learners. Therefore, the focus on meanings gave rise to purely communicative second language lessons, at least in theory. Long (2001) pointed out that, in some content-based sheltered or immersion classrooms, learners are presented with comprehensible and holistic information, as well as held responsible for analysing the target language subconsciously based on the positive input exposed to them. Mastery of grammar, the complex grammatical construction and some pragmatic competence in particular, are thought to be incidental and implicit learning outcomes of communicating meanings. The wide acceptance of the meaning-based approach was supported by the failures or irrelevance of the structure-based method, the reflection from naturalistic first language learning experience, the superabundance of imposing a linguistic syllabus on learners and the unconsciousness of language acquisition (Long , 2001).

However, the meaning-based approach still appears to be insufficient to promote the learners' language development. It has several drawbacks, as further argued by Long (2001). First, there is a lack of needs or means analysis to guide the curricular content and delivery. Second, there is increasing evidence showing that mature learners fail to achieve the level of first language speakers, because their LADs (Language Acquisition Devices) deteriorate when they age, rather as a result of lack in opportunity, motivation or ability. Third, the evaluations of some immersion

programmes reveal that learners' stagnant grammatical competence is caused by the inadequate salient input. Fourth, some grammatically incorrect expressions which have little impact on comprehension of meanings in communication may make learners neglect these grammatical errors. Fifth, some studies indicate that ESL learners benefit from a certain level of instruction on code features in addition to the comprehensible ESL/EFL input.

1.4.1.3 An option between structures and meanings

The inefficiency of focusing purely on structures or meanings causes unstable pendulum swings, because both of these two approaches mistakenly justify their positions based on their opponent's weakness. This insufficiency calls for a pedagogical approach, namely, 'focus on form' (Long & Robinson 1998), which enables students to pay attention to language forms (vocabularies, syntax, pragmatic patterns, etc.) in a meaning-predominant lesson. Different from structure-based approach delineated above, 'focus on form' suggests that the choices for target language forms should be determined by learners' internal psycholinguistic development arising from meaningful communication, rather than by pre-scheduled external linguistic descriptions. Learning, the learning of language in particular, taking into account the affective factor of motivation in addition to cognitive process, occurs during students' interactions with teachers, other students, subject matters and classroom tasks. TBLT (Task-based Language Teaching), as an example of this approach, will be discussed in details in Chapter II.

1.4.2 Relationships between CBI and other current instructional approaches

The fundamental organisation of the CBI curriculum derives from its subject matter core rather than language forms, and language proficiency is acquired in the process of learning about subjects such as mathematics, science, art, social studies, culture, business, history, political systems, international affairs or economics (Leaver and Stryker, 1997). The CBI core materials are selected from those produced for native speakers of the language. The CBI learning activities emphasise understanding and

conveying meaningful messages as well as completing realistic tasks in practice. The CBI curriculum should meet the learners' needs and remain highly dynamic and flexible to students' linguistic, cognitive, and affective reactions in the teaching-learning progress. Extensive research conducted to compare CBI programmes with formal English language instruction shows that teaching English as a separate subject appears to be less effective than any form of CBI (Byrnes, 2000; Sert, 2008). Snow and Briton (1997) reviewed the connections between CBI and other approaches widely used in ESL/EFL teaching settings across different educational levels.

1.4.2.1 Whole language teaching

Whole language teaching stems from the holistic educational view and develops in the direction of student-centred education and social reconstruction (Shannon, 1991). The whole language classes emphasise the accumulation of students learning experience based on the critical assessment of their social reality (Freeman & Freeman, 1997). Teaching reading from structured materials and teaching writing based on grammar rules and workbooks are criticised for a lack of awareness of students' social, economic, ethnic diversity and their ultimate goals to acquire academic knowledge. For this reason, students hope to see a whole language education to help them learn English through meaningful content and fulfil their academic and social aspirations. Whole language, as a result, extends to mathematics, science, social studies and other disciplinary areas from primary to secondary educational contexts. In this sense, whole language teaching is compatible with CBI, in that the former recognises the importance of developing students' language proficiency as well as academic competence, and CBI is one part of whole language (Freeman & Freeman, 1997).

1.4.2.2 Workplace literacy

At the adult level, Henze and Katz (1997) made a comparison of CBI and workplace literacy programmes in terms of audience, location, purpose, content and teachers.

Workplace literacy programmes target those workers at a worksite with vocational language needs, whereas CBI programmes are tailored for those students in academic settings ranging from primary school to higher educational institutions with EFL/ESL demands. Both of them attempt to integrate development of language skills with content mastery in a meaningful context, but in the case of workplace literacy the content specifically refers to the knowledge and skills needed for particular jobs and depends on linguistic demands for job tasks as well as the participants' existing level of communicative skills. By contrast, the content in CBI programmes is usually pertinent to academic disciplines, academic needs and curricular frameworks.

Besides, both of these programmes involve collaborative teaching and need teachers with EFL/ESL backgrounds and job-specific or disciplinary professions. Likewise, Wong (1997) elaborated three types of instructions and four types of delivery systems of VESL (vocational English as a second language), and revealed the concerns in terms of staff development training, content information and materials, administration, and budgeting, which are found in CBI programmes as well.

1.4.2.3 English for academic purposes and English for specific purposes

Johns (1997) argued that English for specific purposes (ESP) is a superior term for all the sound ESL/EFL teaching, and CBI is at the centre to drive this movement. There are some similarities between ESP and CBI. She elaborated that both ESP and CBI originate from practitioners' concern about isolation of language teaching from the contexts and demands of language use in real life. Both of these two movements seek to help students interact cognitively with authentic language resources in genuine classroom activities, thereby transferring language skills and content knowledge to the real world. They both consider the language as a vehicle for communication rather than a linguistic object for its grammatical and lexical features.

However, ESP is still distinguished from CBI in some respects. For instance, CBI is generally confined in the ESL setting across English speaking countries, while ESP is regarded as an international movement in the EFL setting. ESP courses are mainly designed for adult learners and tend to be short, needs-based and focused, whereas most CBI courses are developed for students in schools, colleges and universities. CBI focuses on all of four English skills, whereas ESP often lays emphasis on reading skills to assist EFL students to access texts in science and technology.

There is also a noticeable research-related difference between ESP and CBI. ESP researchers establish their study based on the linguistic analysis of written discourses, and they believe this is essential for the success of a curriculum. By contrast, CBI research is thought to be as a purely pedagogy-based study which focuses on students' affect, instructional strategies and classroom models. In this sense, CBI is required to have more rigorous research to support its claims (Johns, 1997).

Garson, Taylor and Fredella (1997) compared the roles content play in task-based EAP and CBI, and argued that the content in EAP is selected to maximise the opportunities for learners to practice language skills in specific academic tasks, while CBI curricula are designed around content to serve its dual purpose for the 'learning of a second language and mastery of content knowledge' (Brinton, Snow & Wesche, 1989: 182). The determination of tasks in EAP courses is usually dependent on learners' needs analysis and curricular objectives. These tasks are academic *per se* and examples include writing essays, reading textbooks, taking lecture notes, and participating in class discussions. For this reason, the content selected and presented in EAP classrooms needs to meet learners' cognitive demand at a certain level of difficulty and discourse representations.

However, the selection of content for the EAP curriculum seems to be problematic. Content chosen for EAP should be "important" and "interesting" to the learner, as pointed out by Garson, Taylor and Fredella (1997), but these two seemingly

sympathetic and rational criteria are difficult to be applied in practice (Valentine & Repath-Martos, 1997). The students involved in EAP programmes prepare themselves for postsecondary study of a variety of disciplines, and their perceptions of courses content vary significantly from one to another. If EAP students do not reach a consensus on what content is important, their interests are not likely to be accommodated even though multiple topics are used during the content selection.

Consequently, the content knowledge that students gain from EAP courses may not be linked and beneficial to their future academic needs if it is irrelevant to their prospective university disciplines. CBI implies that language acquisition will be realised during content learning, but it does not specify a principled basis for deciding whether content mastery is not one of the primary objectives for EAP courses. Nevertheless, content still plays an indispensible role in stimulating EAP students' transferable cognitive, academic and linguistic abilities in a wide range of learning situations.

1.4.2.4 Culture and Literature as Content

Culture lessons which involve a number of topics such as festivals, food, and music are widely used in most ESL/EFL classrooms. These lessons arouse learners' curiosity and interest, and help them overcome restlessness in an alien culture. Learning a language is thought to be learning a culture, and culture is considered as an indispensible component of language teaching. However, the visible aspect of culture, for example, the differences in food, music and dress, is not very likely to become the source of misunderstandings to disrupt the multicultural classroom, according to Hilles and Lynch (1997). Instead, they further argued that, the transparent aspect of culture upon which people organise, experience and constitute reality – social reality in particular - in markedly different ways, is vitally important and will potentially distort the dynamics of a classroom. This invisible and moral level of culture is expected to be addressed in CBI classrooms to promote cultural diversity.

Literature is used as the ‘quintessential’ content in language classroom and regarded as the ultimate objective of all the language instruction. However, as argued by Holten (1997), its role in EAP settings as well as its position in curricula and methodologies has been circumscribed. This is because some supporters of CBI believe that most academic disciplines have their own linguistic distinctiveness which is different from those embedded in literary texts. A criticism of using literature as the only content is that the literature-based instruction narrowly focuses on some out-of-date or rarely used lexicon and structures, and lacks the chance for students to practice language widely used in other university courses. Studying literature is less likely to develop critical and analytical thinking skills in an argumentation based on warrants and claims, but these skills are universally required in a variety of disciplines at university levels, according to Holten (1997).

By Contrast, CBI aims to improve students’ written and oral communicative competences for a specific discipline by teaching the language predominantly used in the disciplinary texts. However, CBI is also blamed for its extremely narrowing and restricting language in a specific academic disciplinary area. Taking into account these conflicts, Holten (1997) reinstated literature as a feasible and necessary component of CBI classrooms based on several justifications.

First, literature may provide a remedy to CBI with its transferability of writing and analytical skills in other academic subjects, in the event that target students have a divergence of content choices. However, the effect that literature may have on these transferable academic skills in a wide range of disciplines appears to be not confirmed by sufficient empirical evidence. Second, beginning the formal academic and theoretical disciplinary content with some literary excerpts such as short stories may stimulate students’ curiosity about the prospective content and boost their motivation to learn more. Adopting literature as a supplement may intrinsically motivate students because no special expertise or prior knowledge is required to handle this subject.

Third, incorporating literature into CBI may reduce the heavy cognitive demands imposed by those unfamiliar and faithfully replicable materials of university courses. Meanwhile, either integrating literature into the academic sources or teaching a theme-based literature lesson is unlikely to compromise students' academic skills. Adversely, the analysis of literature may lay a solid cornerstone for the written analysis skills that students need in university courses. Finally, as concluded by Holten (1997), literary texts such as excerpts of novels may provide a crucible for teaching grammar of academic texts, because students are more willing to explore the grammatical structures and vocabularies of the selected texts if they have a sound understanding of the gist of plots, characters and themes of a short story.

Chapter II Literature Review

The integration of language and content instructions in various methods, models and programmes has prevailed in a wide range of subjects from primary schools to postsecondary educational institutions since the 1980s. This 'integration of content learning with language teaching aims' (Briton, Snow & Wesche 2003: p2) gives rise to a pedagogical school of language teaching, namely, CBI (content-based instruction). This chapter begins with the introduction of CBI's definitions and its theoretical rationale. Then it focuses on the development of CBI curricular models, their applications in higher education across the world and the evaluation of CBI programmes. Finally, a summary is drawn upon the literature review, which links to the current study in Chapter III.

2.1 CBI from North America to Europe

CBI, for the purpose of integrating language learning with content learning, launched a profound revolution in EFL/ESL teaching and learning after it had been first introduced in the EFL immersion education in Canada and the United States in the 1960s and 1970s (Swain & Lapkin 1982, Stern 1984, Genesee 1987). The term CBI was defined in various ways by a number of previous ESL researchers and practitioners in the past a couple of decades. Brinton, Snow & Wesche claimed that CBI is 'the concurrent teaching of subject matter and second language skills' (2003: p.5) and it eliminates the artificial separation between language and subject matter courses. Crandall and Tucker (1990) defined CBI as an approach to language instruction that integrates the presentation of topics or tasks from subject matter classes such as mathematics and science (Cuevas 1984； Kessler & Quinn 1987).

Krueger and Ryan (1993) put forward the term 'discipline-based' to distinguish between 'content-based' and 'form-based' for the reason that there are also a variety of definitions of 'content' in different contexts for different teaching purposes. Wesche (1993) regarded CBI as the concurrent learning of specific content and

relevant use-oriented second and foreign language skills. Curtain and Pesola (1994) confined the content of CBI to the 'academic subject matter' taught through the foreign language and appropriate to the grade level of students.

By contrast, beyond academic domain, Chaput (1993) and Genesee (1994) suggested that CBI content can involve any topic of intellectual substance of the interest or importance to the students' understanding of the target language in particular. Snow (2001) also interpreted CBI content as either the topics or themes based on students' interests or school subjects. Met (1999) pointed out that content used in CBI programmes needs to cater for learners' cognitive process and 'extends beyond the target language or target culture'. Wesche & Skehan (2002: pp.221) considered CBI to be relevant to full-time students preparing study through a second language at different levels of education. More recently, Brinton (2007) emphasised that CBI teaching is a 'content driven curriculum', in which the selection and sequence of language elements are determined by content.

As a synonym of CBI used in Europe, CLIL (Content and Language Integrated Learning) is regarded as the most widely used approach which stresses the joint role both language and subject play in the foreign language teaching and learning (Marsh 2002: p.58), rather than achieving the language proficiency by sacrificing mastery of the subject content (Coleman, 2006; Stohler, 2006; Sert, 2008). Holdsworth (2004) introduced CLIL as effective opportunities for pupils to use their new language skills simultaneously without requiring extra time in the curriculum, instead of a language reservoir for later use. Wolf (2007) echoed Marsh and Langé's (2000: p.iii) definition of CLIL and pointed out that, foreign languages are best learned by focusing on content transmitted through language but not the language itself. Navés (2009) reviewed the European Commission's (2005:5) report on foreign language teaching and learning and claimed that, some previous approaches in the name of 'CBI', 'immersion' and 'BE (Bilingual Education)' was replaced by CLIL.

CLIL was claimed to help pupils learn non-language-related subjects such as history and geography in second or foreign language, and achieve the language learning objectives in EU (Marsh & Langé, 2000). In the UK, CLIP (Content and Language Integration Project) has been developed for Years 6-9 school subjects such as geography, history and citizenship in major combination with French, German and Spanish (Wiesemes, 2009). The purpose of these programmes was not only to develop students' language competence but also to improve their attitudes towards foreign language and subjects learning (Nuffield Foundation, 2000), because there was a clear decrease from 57% to 30% in foreign language learning, German and French particularly at British secondary schools (CILT, 2002).

2.2 CBI rationales

Although some CBI definitions exist in a number of different guises, all of these variations are based on the following five rationales made by Briton, Snow & Wesche (2003: pp.3-4):

- Language teaching should take into account learners' eventual uses in the target language.
- The use of informational content can increase language learners' motivation and promote effective learning.
- The pedagogical underpinning of learners' previous learning experience as well as prior knowledge of subject matters, target foreign language and academic environment need to be considered.
- Language teaching and learning should focus on the contextualised use in extensive discourses and during social interactions, rather than on fragmented examples of sentence level usage.
- Successful language acquisition can be accomplished only when learners resort to cognitive ability to comprehend the 'input' of relevant content to facilitate high-level language proficiency.

2.2.1 Necessary conditions for L2 learning

These rationales supporting CBI come from a number of SLA theories and practices (Spanos, 1990). The theory of SLA (Krashen, 1985; Long, 1990; Swain, 2000; Lightbown & Spada, 2006) suggests that a second language is most successfully acquired when the conditions are similar to those present in first-language acquisition. That is, when the focus of instruction is on meaning rather than on form; when the language input is at or just above the proficiency of the learner; and when there are sufficient opportunities to engage in meaningful use of that language in a relatively anxiety-free environment. These conditions require and stimulate the pedagogical interest of second language teaching and learning to shift away from the structural approach to cognitive/constructivist methods, which emphasise meaningful and comprehensible input (i.e., academic content) of the target language.

2.2.2 Cognitive Academic Language Proficiency (CALP) and Basic Interpersonal Communication Skills (BICS)

Cummins's (1981) elucidation for two types of language proficiency – CALP (Cognitive Academic Language Proficiency) and BICS (Basic Interpersonal Communication Skills, i.e., social language) – provided the further support to CBI. He believed that the acquisition of CALP and BICS is determined by in what degree the context is available to individuals and to what extent the cognitive demand challenges learners. For instance, students can acquire highly contextualised, informal and cognitively less demanding social language relatively easily within one or two years.

By contrast, when students are required to attend a university lecture, read an academic journal article, give a presentation in a seminar, or write a laboratory report, it takes them five to seven years to develop this kind of academic language. The academic language is less contextualised, more formal, abstract, and cognitively demanding (Collier, 1987, 1989; Crandall, 1993; Navés, 2009). Cummins (1984) pointed out that tasks for successful language learning should be highly

contextualised and cognitively demanding, rather than in favour of more advanced academic language at the cost of postponing content instruction. Snow's (1987) further discussion on the roles of contextualised and decontextualised language skills reiterated the importance of contextualised use of language in SLA. These studies implied that students' academic language proficiency and their cognitive academic skills in a specific discipline ought to be developed in the same class. Content classes provide a natural context for academic input to facilitate the development of linguistic and cognitive skills (Spanos, 1990).

2.2.3 General academic discourses versus specific disciplinary discourses

Apart from the aforementioned five primary rationales which reflect principles of learning in general, or language learning in particular, Briton, Snow & Wesche (2003) put greater emphasis on the roles of socio-cultural contexts and appropriate input genres for academic practice in SLA, in the final added chapter of the 2003 volume of *Content-based Second Language Instruction*. They argued that CBI curricula take into account learners' previous learning experiences, needs, and interests in the discipline in formal educational settings, and also allow focus on communicative function and eventual use of the target language through the engagement with relevant content and discourses. The target language used to express and communicate disciplinary concepts and ideas (Krueger & Ryan, 1993) gives rise to academic discourses in which the features of expository prose correspond to the basic knowledge structures commonly in school curricula (Mohan, 1986; Tang, 1992; Mohan, Leung & Davidson, 2001).

Some lexical components and discourse structures are typically used in depicting hierarchical classification systems and cyclical, sequential or temporal information in different disciplinary texts. Besides, genres such as journal article introductions (Swales, 1990), abstracts (Bhatia, 1993), textbooks (Myers, 1992), examination essays and questions significantly overlapped across disciplines. In this sense, according to Bhatia (2004), the academic discourse within language teaching contexts, has long been seen as a unified register. For example, a number of EAP

programmes, presupposing an 'academic core' underlying most disciplines, are widely offered ESL/EFL learners all over the world.

However, Bhatia (2004) pointed out that such an 'academic core' is often adopted in favour of pedagogical convenience for the design and delivery of language programmes, rather than established on its pedagogical benefit for literacy practices. Despite the existence of generic overlaps across disciplinary boundaries, he further argued that these genres display subtle variations as to how lexico-grammatical resources and rhetorical strategies make sense of disciplinary concepts, knowledge structures, and pedagogic approaches (Biber, 1988; Hirvela, 1997; Bhatia, 1999, 2004; Hyland, 2000). He compared the academic genres in law, business, and public administration and pointed out that the existent generic and disciplinary conflicts may in turn set barriers for those second language learners with limited language competence when they face the complexity across disciplinary boundaries. The tensions between these disciplinary variations and generic overlaps appear to question the use of unified 'academic core' in EAP classrooms, hence the in-depth integration of content-based and language literacy practices is appealed in the CBI community.

2.2.4 Task-based Language Teaching (TBLT)

More recently, Navés (2009) included *TBLT* into the rationale of CLIL and emphasised the importance of communicative language teaching in CBI classrooms. Kol (2002) argued that the task-based approach is Dewey's (1966) theory of 'learning by doing' in essence. This can be also found in a Chinese Proverb cited in Hutchinson & Waters' (2002) book *ESP* in the form of 'I hear and I forget. I see and I remember. I do and I understand' (p.128). The social-cultural theory suggests that learners collaboratively construct knowledge as joint activities, based on their social-cultural history and the locally determined goals of these activities (Shehadeh, 2005). This perspective, originally from Vygotsky's (1987) work on the effect of dialogic interaction in external social activities on language learning, suggests that learners' cognitive and language development should move from the

inter-psychological (social) plane to intra-psychological (internal) sphere. As a result, learners internalise language by participating in the dialogue with others. TBLT, representing the realisation of this development through the joint completion of tasks, regards communicative language teaching as 'a broad, philosophical approach…at the levels of syllabus design and methodology' (Nunan, 2004: p.10).

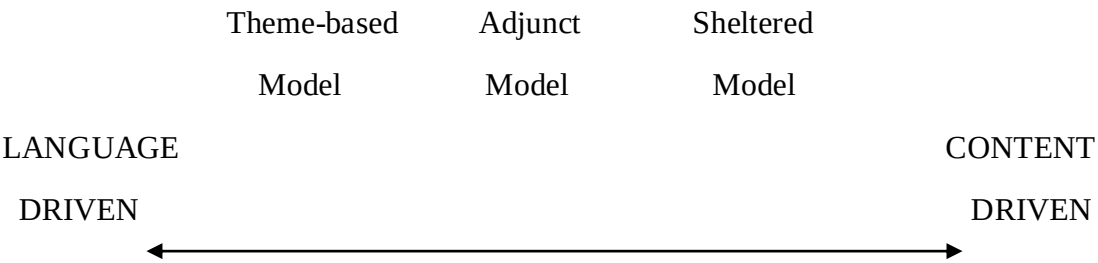
Shehadeh (2005) pointed out that the meaning-based, 'communicative' syllabuses such as functional, situational, thematic or content syllabuses which are so-called TBLT foster processes of 'negotiation, modification, rephrasing, and experimentation' (Richards and Rogers 2001: p.228) and they provide better contexts for accelerating learner acquisition. It is argued that there is no discontinuity between CBI and TBLT (Littlewood, 2007; Navés 2009), and both of them evolve from the movement of content-language integration, but they take different routes to develop learners' communicative competence (Richards, 2005: p.29). The socio-cultural view emphasises that learners approach and perform tasks in different ways on different occasions, depending on their interpretations of the task (Swain and Lapkin, 1998). As argued by Shehadeh (2005), learners set their own learning objectives, procedures and the way they collaborate with others in academic tasks.

A CBI programme with ongoing evaluated tasks seems to provide stronger potential for interlanguage development, in comparison with teacher-oriented language-item based models (Owens, 2002). She believed that students appear to be more engaged in the learning process when they hold responsibilities for task materials and evaluations. Therefore, it is assumed that social interactions mediate learning, according to Ellis (2000: p.209), and learners need to engage in a process named 'scaffolding' to internalise a new function by performing it in collaborative activities with others. These activities require students not only simply to exchange information, but also to negotiate new knowledge and use problem-solving skills to meet the challenge and complexity as more content is brought in the lesson (Stoller, 2002).

2.3 Three Basic CBI models

Three basic CBI models at the university level (Briton, Snow & Wesche, 2003) distinguish from one another in dependence on different teaching purposes, instructional format and responsibilities, student population, and focus of evaluation. All three models represent three different ways of introducing content into language lessons. Therefore, they are thought to be three separate types of CBI methods. However, it is helpful to view these three models as different points on a continuum (see *Figure 2. 1*).

Figure 2. 1 A Content-based Continuum (Met, 1999)



2.3.1 Theme-based model

A theme-based model lies close to the language-driven end (see *Figure 2.1*). The primary purpose of this model is to help learners develop second language competence within specific topic areas. The language instructor is responsible for both language and content instructions, hence he functions as the subject matter teacher as well. Students in this model originally earn language credits and they are evaluated based on the development of language skills. This kind of curriculum is composed of thematic or topical units through which the traditional language skills are stressed. Content learning occurs in this model and it is composed of authentic materials from magazines, newspapers, TV or radio broadcasts which are adapted for language-teaching purposes. Briton, Snow & Wesche (2003) articulated that the content in theme-based model is used to teach language skills.

However, according to Eskey (1997), the theme-based instruction begins with an interesting subject for learners and a focus on real communications, which is different from the drill-based and functional/notional syllabus emphasising language rules. This model is a weaker form and aims to develop learners' second language proficiency through a curriculum of learning substantive information and skills (Brinton & Master, 1997; Wesche & Skehan, 2002).

A range of theme-based programmes are introduced by many CBI researchers such as Lafayette & Buscaglia (1985), Leaver & Stryker (1989), Stoller (1999) and Met (1999). Parkinson (2000) described a theme-based language course for science students in South Africa. He attempted to fit the language literacies into the four uses of themes from obtaining reading data to gathering investigation data. The materials ranging from non-academic texts to journal articles were used not only to introduce subject content, but also to allow learners to practice reading skills such as scanning and skimming, and writing skills such as note-taking. A final writing research report from the student was assessed based on content, genre, and grammar to examine how the language literacy outcomes had been achieved.

2.3. 2 Sheltered model

The sheltered model resides close to the content-driven end (see *Figure 2.1*). The primary aim of this model is to help learners master subject content. The content instructor is responsible for content instruction and is aware of learner's language barriers. This kind of course aims to help students master content knowledge while incidental language leaning occurs. Students in these courses originally earn subject matter credits and they are assessed on mastery of content. The core of the curriculum is formed by the content materials, which consist of readings and lectures from disciplinary courses.

As a strong form of CBI programme (Wesche & Skehan, 2002: pp.222), any language component is typically limited to a focus on comprehension and study

skills required for mastery of particular content. In addition, the learners' limited language proficiency needs to be systematically taken into account in this model. Examples of this model include those 'immersion' language programmes in which subject knowledge is taught in a foreign language (Swain & Lapkin, 1982; Genesee, 1987, 1994; Met & Lorenz, 1997; Johnson & Swain, 1997) and those non-language disciplinary programmes taught through a second or foreign language at postsecondary levels (Edwards et al, 1984, Ready & Wesche, 1992; Krueger & Ryan 1993; Stryker & Leaver, 1997). Sheltered courses often play prominent roles in K–12 settings (Murphy & Stoller, 2001) in which school subjects are only taught in foreign languages instead of the native language. Met (1999) reviewed the sheltered programmes in the U.S. and pointed out that the students in this model are required to learn the subject in the foreign language even if they have limited proficiency. The sheltered model enables teachers to deliver more comprehensible subject content to foreign language learners.

However, it is difficult for many students to gain necessary academic literacies for succeess in mainstream classes to meet non-language disciplinary standards, due to a lack of systematic language development (Echevarria & Short, 2004). Besides, it is claimed that this kind of discipline-based approach has some limitations regarding its overreliance on teachers and rote learning, incompetence of handling academic information and difficulty in applying theory to problem-solving practices (Flowerdew, 1991; Snow, 1993).

2.3.3 Adjunct model

An adjunct model as a mixed form of CBI (Wesche & Skehan, 2002: p.222) is located at the centre of the continuum (see *Figure 2.1*). It emphasises the equal importance of language and content instructions in order to help students master both of them. Meanwhile, it aims to introduce students to general academic discourses and assist them to develop transferable academic skills (Briton, Snow & Wesche, 2003). Students originally receive separate academic credits for both courses. The language

syllabus is mapped onto the curriculum and includes treatment of more general academic language skills in addition to content specific language needs. Most language practices in this model rely on extensive teacher-developed materials which establish the language/content link. This collaborative model was widely used in many postsecondary programmes (Snow & Brinton, 1988; Stryker & Leaver, 1997) offered to advanced language learners who prepared themselves for academic studies and professional careers that require high levels of second language competence. Besides, the adjunct model can also enhance students' self confidence by using the target language to accomplish tasks.

For example, in an International Language Programme at Brigham Young University-Hawaii (Andrade & Makaafi, 2001), students simultaneously enrolled in an integrated-skills ESL course and a general disciplinary course such as first-year biology, health, humanities, music, physical science, political science and psychology. They articulated that, in this model, students' needs of language, acculturation, and study skills should be identified by the adjunct instructor. In addition, a large amount of work in terms of administration, collaboration between university departments and communications between the disciplinary faculty and the language faculty is needed to ascertain the implementation of this kind of programmes.

Davison and Williams (2001: 57) criticised the above three CBI prototype models for their failure to distinguish between 'curriculum focus, theoretical model or approach, teaching materials, likely arrangements and teachers roles'. However, these three models are still thought to be valid guides for most new CBI programmes in many educational settings, as argued by Briton, Snow & Wesche (2003), and the proliferation of other CBI formats which share some of their features or represent mixed models reflects the natural adaptation of instructions to a wider range of contexts. They pointed out that this adaptation was taken into account in the original (1989) publication of *Content-Based Second Language Instruction*:

> A … benefit to be derived from viewing these models as existing along a continuum rather than as discrete entities is that it allows consideration of other content-based variations which combine features of the three prototype models. A modified model might combine features of sheltered and adjunct programmes, or of theme-based and sheltered programmes…The key point to be made here is that, depending on the setting, the configuration of the model may differ significantly, and the features of the three models outlined may tend to be blend together. (p.23)

However, Davison and Williams (2001) express their concern that it is very difficult to witness some comprehensive CBI models and teaching materials appropriately reside at the centre of the continuum.

2.4 Sustained-content language teaching (SCLT)

A recent development of CBI, sustained CBI is introduced by Pally (2000). A subsequent special-topic issue of *TESOL Journal* (Murphy & Stoller, 2001) demonstrated definitions and examples of SCLT (sustained-content language teaching). SCLT is a theme-based instruction which focuses on a 'single content area' with a complementary purpose for second language teaching and learning. Briton, Snow & Wesche (2003: p.247) asserted that the greater depth of treatment in disciplines is ensured in SCLT, according to a number of empirical studies (Carson, 2000; Brinton, 2001; Janzen, 2001; Mendelsohn, 2001; Murphy & Stoller, 2001).

For example, Carson (2000) designed a task-based multiple-skills EAP programme for psychology learning. Briton (2001), as another example, compiled her genre-based class syllabus based on a sustained topic of 'Los Angles City'. Mendelsohn (2001) stressed the prominence of sustained content used in the strategy-based approach, rather than its role of a vehicle for language learning.

Murphy and Stoller (2001: p.3) pointed out that SCLT has many strengths for students to learn language through the medium of a single content area: the extended study of unified content allows for the exploration of information from a variety of sources and diverse viewpoints; it facilitates 'critical thinking, extensive reading and

opportunities for comparison, contrast, synthesis, and evaluation'; the presentation of coherent information that covers all or much of one subject leads to 'deeper engagement with content sources, meaningful content learning, and improved language abilities'; it enables second language learners to concentrate on learning the content-specific vocabulary and more significantly, the academic vocabulary useful in other disciplines; it also offers students opportunities to use different learning strategies. To sum up, SCLT helps students develop language and academic transferable skills to succeed in academic settings and other contexts.

However, SCLT also received criticisms from the CBI community for the danger of losing the disciplinary content integrity owing to its reliance on the responsibility of language instructions in theme-based courses (Briton, Snow & Wesche, 2003). A lack of non-language content instructions in SCLT may not truly lead students into the disciplinary discourse community of first language-speaking experts, but its primary focus on language instructions may help adapt CBI courses for second language learners at different language proficiency levels.

In addition to these CBI models that are traditionally set on the content-to-language continuum, Chamot and O'Malley (1996), Short (2002), Beckett & Slater (2005), and Zhang (2007) focusing on Business English in particular, attempted to view CBI curricular models from a triumvirate perspective.

2.5 The Cognitive Academic Language Learning Approach (CALLA)

CALLA (The Cognitive Academic Language Learning Approach) was developed by Chamot and O'Malley (1986, 1996) and distinguished by its three-way commitment to content, language and strategy learning. Based on the cognitive learning theory, CALLA is an instructional model aiming to improve second language learners' achievement by integrating content instructions with language development and explicit instructions in learning strategies. They claimed that active learners should mentally participate in the interactive teaching-learning activities featured by

applying prior knowledge to the new problems solving, searching for meaning in new information, in-depth thinking, and developing abilities to regulate one's own learning. In contrast with the subconscious nature widely recognised in SLA (Krashen, 1982), CALLA put greater emphasis on second language learners' autonomy. As a result, students are able to make their own learning decisions and manage their own learning behaviours (Scharle & SzabÓ, 2000) under the teachers' support, which may promote effective learning.

2.5.1 Academic needs

Language development plays an essential role for both first and second language speakers in educational contexts for a variety purposes, according to Chamot and O'Malley (1996). Compared with native English-speaking students, second language learners may encounter more difficulties in using English as a medium of learning in academic settings. They need to overcome these language barriers during reading textbooks, writing expository reports, expressing ideas and information, explaining and analysing problems.

The development of the CALLA model was influenced by three lines of research seeking to improve instructions for disadvantaged second language learners studying subject matters at schools. First, Cummins (1981, 1984, 1986, 1994) and Collier (1987, 1989) conducted a series of research with immigrant students in Canada and the US, respectively. They argued that concepts and skills developed in these students' first language can be transferred readily to English once they learn English successfully. However, there is evidence indicating that such a transfer may not be realised automatically without appropriate instructions (McLaughlin, 1990; Grabe, 1991).

Second, some modifications were made to the traditional ESL curriculum in which linguistic aspects of English are assumed implicitly to be sufficient for students to learn academic content in English. These modifications suggested that using social

studies or science materials not only can help students master subject knowledge, but also can significantly improve their English skills (Cohen, DeAvila & Intili, 1981; DeAvila & Duncan, 1984; Mohan, 1986; Genesee, 1987).

Third, the investigation of mental processes and learning strategies showed that more effective language learners are more inclined to appropriately select and adopt strategies for a language learning task than those less effective learners (O'Malley, Chamot, & Küpper, 1989; Vann & Abraham, 1990; Nagano, 1991). In addition, some experimental studies on learning strategy revealed that students receiving instructions on strategy made moderate success in improving language proficiency (Chamot, Robbins, & El-Dinary, 1993; Thompson & Rubin, 1993) such as their spoken presentations and listening skills (O'Malley *et al*, 1985).

The development of CALLA was established on the study of language learning strategies in academic settings in connection with the cognitive learning theoretical model. O'Malley & Chamot (1990) argued that instructions on learning strategies can be divided into three mutually supporting types and they are likely boost students' self-motivation and self-confidence. Metacognitive strategies include planning, monitoring and evaluating processes. Instead of depending on teachers, these strategies provide students with more power over their own leaning in determining task objectives, deciding how to organise the task, managing their performance as they engage in the task, and evaluating their performance after completing the task. Cognitive strategies such as the elaboration of prior knowledge, imagery, and linguistic transfer may help students develop academic skills and increasing their confidence. Social and affective strategies such as the intention of collaboration with group members may give prominence to students' teamwork values in socially mediated work. In all, the use of learning strategies can develop students' self-efficacy at the root of self-esteem, self-motivation and self-regulation (Zimmerman, 1990).

2.5.2 Theoretical backgrounds

The cognitive learning theory suggests that learning is an active and dynamic mental process. Learners select, organise, and evaluate information, relate information to their prior knowledge, use information in relevant discourses, and reflect on the achievement of their learning effort. There are two types of information in memory: declarative knowledge ('what' they know, e.g. factual and conceptual information) and procedural knowledge (what they know 'how' to do, i.e. problem solving skills). These two types of knowledge are learned through different instructional procedures (Gagné et al., 1993). Declarative knowledge is learned most effectively by building existing information in memory, whereas procedural knowledge is learned best by applying skills in a meaningful context.

However, there is an interaction between declarative and procedural knowledge. Chamot and O'Malley (1996) argued that using language such as listening, reading, speaking and writing could be regarded as a complex cognitive procedure, in which information gained and ideas exemplify declarative knowledge. Using language is also thought to be goal-oriented. For example, one learns Business English for the purpose of reading and comprehending business information, expressing and explaining business ideas, and persuading and evaluating business work in both speaking and writing forms.

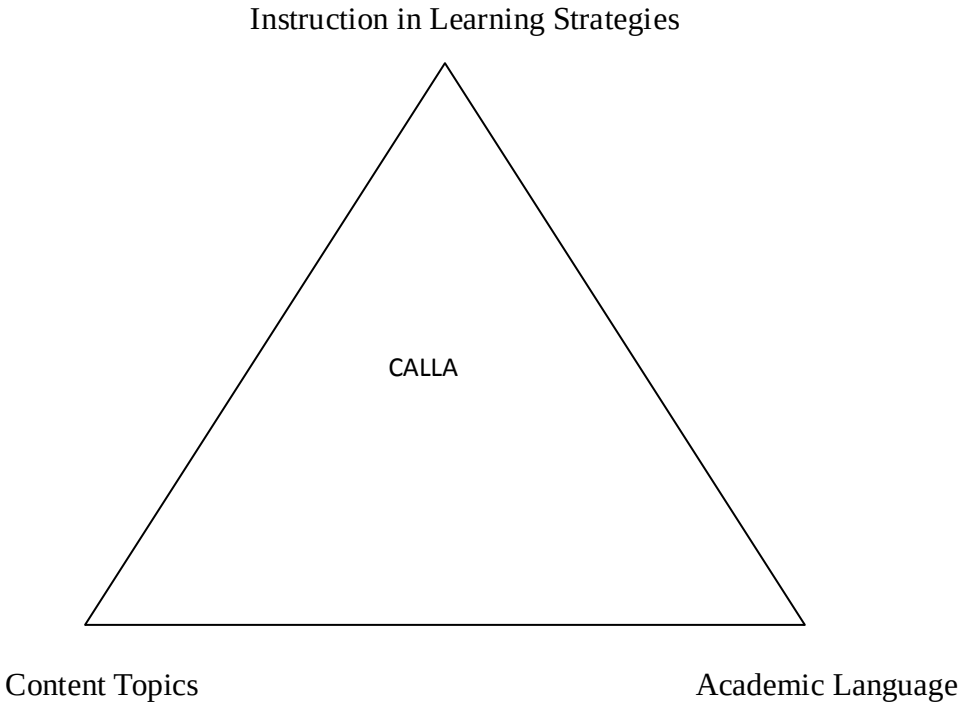
Besides, the complexity of language procedural conventions is characterised by communicative ability to use grammatical, sociolinguistic, discourse and strategic skills (Canale & Swain, 1980). Teachers are required to model these skills for students and provide opportunities for them to practice in authentic interactive contexts, rather than delivering these conventions as declarative knowledge. Both teachers and peers can help apply these appropriate language conventions by collaboratively accomplishing a task. Furthermore, the social-cognitive theory of motivation emphasises the value that learners place on a task, their expectation for success and their awareness of the internalisation (Bandura, 1986). It is believed that

content instructions can provide this kind of value to students and boost their intrinsic motivation.

2.5.3 Three components of CALLA Model

The CALLA model involves three interrelated components: high-priority content topics, the academic language development based on content, and the explicit instruction in learning strategies that can help students understand and remember both content and language (see *Figure 2.2*). First, by emphasising academic subject content, language teachers can prepare students for using strategies in subsequent authentic content with the necessary vocabulary and linguistic structures. Second, by focusing on academic language skills, language teachers can help students become more academically competent. Teachers should teach students how to read disciplinary texts, how to listen to the speech on a topic, how to write informational summaries or reports, and how to orally explain reasoning and problem solutions. Third, applying effective instructional techniques for both content and academic language learning can help students deal with these dual demands in general classrooms.

Figure 2.2 CALLA Model (Chamot & O'Malley, 1996)

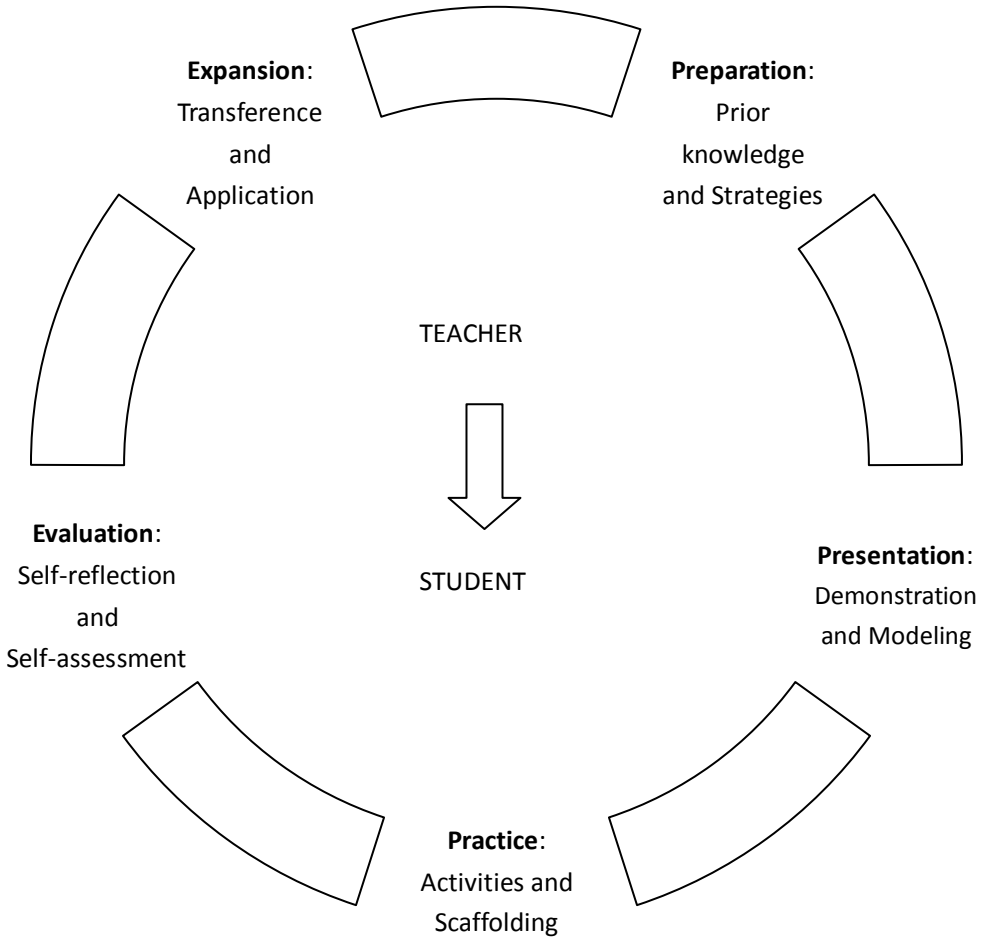


2.5.4 A leaner-centred approach

CALLA instructions are 'learner centred', according to Chamot and O'Malley (1996). In this model, teachers' roles include helping students make use of their prior knowledge in order to restructure their knowledge reservoir, and creating opportunities for students to improve language proficiency and subject knowledge as well as critical thinking skills. They further emphasised that the selection of content should focus on depth instead of breadth. Language tasks ought to aim at developing students' academic language proficiency in listening, reading, speaking and writing. Teachers need to explicate instructions for learning tasks at the beginning and gradually hand over learning responsibilities to students.

Chamot and O'Malley (1996) illustrated a five-stage cycle of CALLA instructional sequences which include introducing, teaching, practicing, evaluating, and applying content, language, and leaning strategies. These five stages of sequence do not have to be in a strict order, but they should be recursive and centre on students' needs to foster their sense of independence and self-efficacy. They further described the main components of each stage as the interplay of applications of the new information and skills on an uninterrupted basis. As can be seen in *Figure 2.3*, during the preparation stage, teachers review students' existing knowledge and figure out appropriate learning strategies. Then they demonstrate new subject knowledge and skills following proper instructions on learning strategies in the presentation stage. At the practice stage, students follow these instructions to participate in a meaningful task, exchanging and sharing their ideas interactively and collaboratively. Finally, students reflect on and assess their learning outcomes during evaluation stage and refine effective transferable academic skills to help themselves in the future applications at the expansion stage.

Figure 2.3 Five stages of CALLA instruction models (Chamot & O'Malley, 1996)



Some anecdotal evidence (Crandall. 1993; Echevarria, Vogt & Short, 2008) showed that adding specific strategies to the sheltered approach is likely to make subject content more comprehensible and meanwhile develop students' academic English language skills. However, the information about effects of CALLA programmes is still limited because teachers always encountered difficulties in identifying and adapting materials and introducing instructions on learning strategies into the predetermined curriculum. An interview study of students' performance when solving a word problem (Chamot, *et al*, 1993) implied that students in the high-implementation CALLA group performed better than those from the low-implementation CALLA group in terms of using metacognitive strategies, sequential problem–solving procedures and logical solutions. Nevertheless, additional research on the programme evaluation would be necessary to further validate the CALLA in practical classrooms.

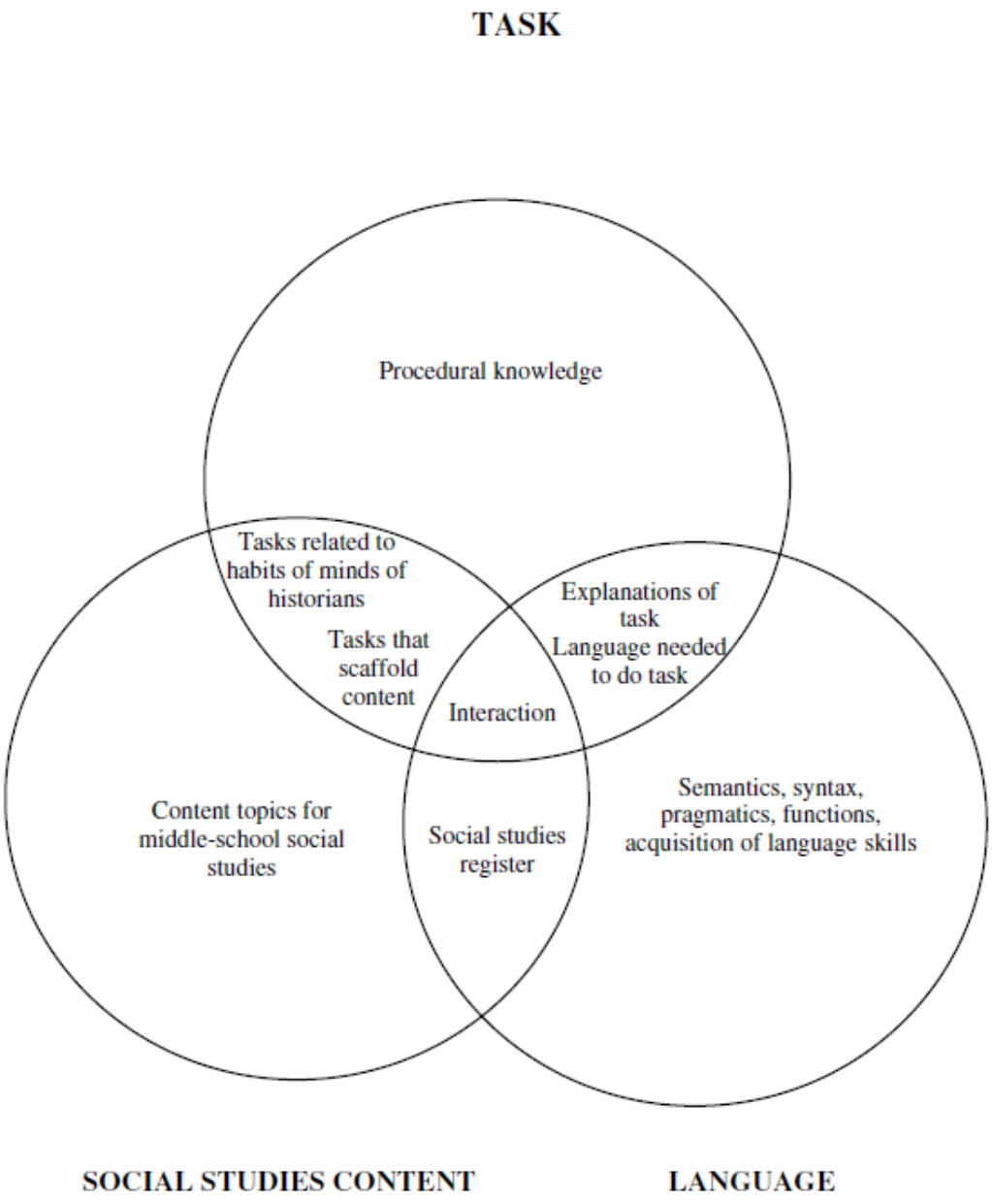
2.6 The Language-Content-Task framework (LCT)

Based on CALLA, Short (2002) introduced the LCT (Language-Content-Task) framework (see Figure 4) which includes three areas of academic literacy: knowledge of the target language (L), knowledge of the content area (C), and knowledge of how the tasks are to be accomplished (T). These three areas and their interactions are applied in the sheltered social studies class at secondary schools, but they can be also widely used in academic disciplines at different levels, according to Stoller (2004).

2.6.1 Three academic areas and their overlaps

In this framework, the language circle involves the instruction that teachers use to help students master semantic, syntactic and pragmatic knowledge of English, as well as guide students in deploying learning strategies to practice and improve four conventional language skills and language functions such as clarifying, persuading, justifying, negotiating meaning and summarising. The content circle represents the concepts stemming from the subject curriculum standards and objectives included in textbooks. In this domain, teachers are responsible for evaluating, selecting, and deciding curricular topics based on students' language proficiency levels. The learning strategies for obtaining, processing and remembering subject content also need to be addressed. Short (2002) emphasised that the tasks used in the LCT are different from the communicative language tasks implemented in SLA literature for the purpose of stimulating language production and practising language skills. Instead, these tasks aims to help students acquire procedural knowledge and learning strategies to improve their comprehension and retention of information, though language is necessary to accomplish most tasks.

Figure 2.4 Language – Content – Task Model (Short, 2002)



Short (2002) further pointed out that the overlaps of three circles in *Figure 2.4* provide the 'glue' for students to 'conglutinate' knowledge of language, content and task together in teaching-learning activities. At the intersection of language and content circles, teachers need to identify the generic features of the target language in specific disciplinary discourses, and teach students how to use them. The overlap of social content studies and the task represents students' competence in applying disciplinary knowledge to the problem solving in real life. This discipline-oriented instruction may help second language learners develop the academic literacy in a specific disciplinary area. Likewise, the area shared by language and task circles

refers to the language that teachers use when giving task instructions and the language skills students need to master in order to accomplish the task. Students are less likely to accomplish the task without sufficient preparations for language skills, as pointed out by Short (2002). The intersection of the three circles situated in the centre represents the interactions of three aspects of academic literacies, which refers to the ability to comprehend task materials and participate in the joint construction of knowledge in classrooms. In order to help students interact with subject content and academic tasks using English in either oral or written form, teachers need to offer explicit instructions regarding how interactions should occur, how participations should be involved collaboratively, and how classroom activities should be implemented consistently. Moreover, teachers also need to take into account students' cultural backgrounds and organise classroom teaching-learning activities in responsive accordance with students' value of learning, behaving and using language (Batolomé, 1994).

2.6.2 Discourse analysis of oral interactions

A study of discourse analysis of oral interactions was conducted to investigate how teachers use instructions on language, content and task in the classroom (Short, 2002). Two ESL teachers, two social studies instructors and students with diversified cultural backgrounds from four middle-school sheltered classrooms in the mid-Atlantic region of the US participated in this study. Ten observations were carried out in each teacher's classroom to identify their instructional strategies. The teaching-learning objective, the speaker and the function of discourse units were investigated. Interviews with the participating teachers were conducted as well. The results of this analysis revealed that most of teachers' interactions focused on instructing content (35%) and tasks (44%) rather than language development (20%). If content and task learning objectives dominate the lesson development and implementation, ESL/EFL teachers will be forced to place very limited weight on language instructions. Nevertheless, as the subsequent analysis showed, a significant majority (95%) of language instructions stressed the glossary comprehension and pronunciation rather than on language learning strategies, metalinguistics and four traditional language skills.

This study also indicated that teachers made use of appropriate strategies to deliver comprehensible subject content to students. These teaching techniques included adapting teaching materials in accordance with students' English proficiency, providing instructional strategies to scaffold students' reading comprehension, modelling methods to deal with information from text, and supplementing information with verbal explanations and visual supports. Teachers also prepared students for social studies in English language in a variety of teaching-learning activities such as map skills, role play, interpretation of photos and diagrams.

The interview data reiterated the conflict between language, content and task instructions. Some ESL teachers were reported to lack specialist skills to handle subject knowledge. They believed that students could use language competently in a less structured manner, in which language instructions aimed at teaching rules and providing opportunities for drills. By contrast, some social studies teachers without ESL backgrounds were unaware of the need to integrate the language development into the content learning. They believed that language should be taught in separate lessons. Short (2002) concluded that both of their attitudes towards teaching in sheltered social studies lessons did not fit the LCT model.

2.7 The Project Framework

Beckett and Slater (2005) described 'The Project Framework' which was used in an undergraduate university ESL classroom, and offered a new perspective to look at language and language learning. This Framework helps ESL/EFL students recognise the value of project-based instruction by explicating the various components to promote higher level academic literacy: language, thinking skills, and content knowledge.

2.7.1 The project-based instruction

The project-based instruction was regarded as an effective learner-centred approach (Hedge, 1993) to integrate language and content into ESL lessons, which provides

opportunities for second language learners to develop their academic literacy by interacting with peers. Beckett (1999) also claimed that the projects in ESL classrooms also aimed to challenge students' creativity, foster independence, enhance collaborative skills, build decision making, critical thinking and learning strategies, and facilitate the language socialisation into local academic and social cultures.

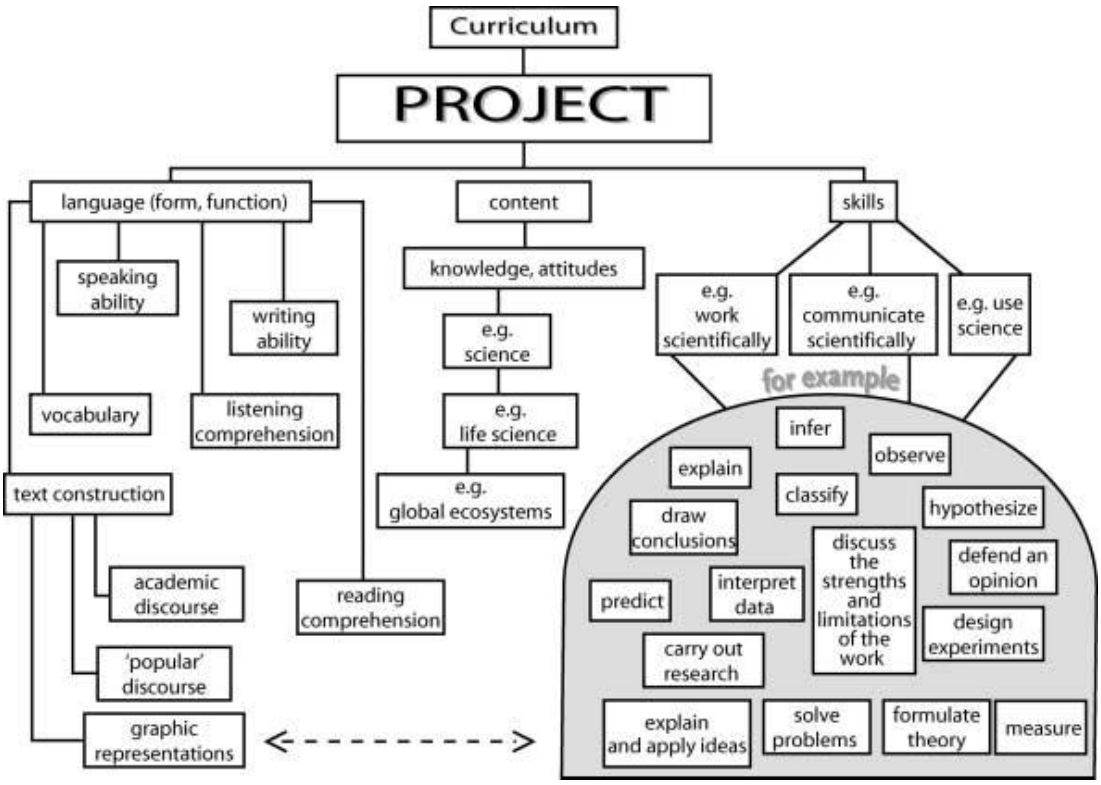
However, some negative evidence (Eyring, 1989; Beckett, 1999, 2002; Moulton & Holmes, 2000) revealed students' dissatisfaction with the project approach, because different teachers and students may hold different philosophical, cultural and linguistic values (Beckett, 1999). For instance, as illustrated by Beckett (2002), some students stated that those project-based activities did not give them sufficient support on the language development, which is important to advance their education. Similarly, some students expected ESL lessons to be established on the language study rather than developing academic skills in a specific disciplinary area through research and cooperative work. Therefore, the difference in learning objectives and resources for students needs to be clarified explicitly prior to the project in order to help them identify the value of the task, as argued by Beckett (1999) and Wilhelm (1999).

2.7.2 Three categories of planning graphic

The project framework includes a planning graphic (see *Figure 2.5*) and students' project diary. Language, content and skills, as three major categories are displayed with some subdivided components in the planning graphic. For example, the 'language' domain consists of vocabulary, four language skills, and text construction; the 'content' domain refers to subject knowledge attitudes; the 'skills' domain embodies a variety of academic abilities such as making hypothesis, interpreting data, explaining ideas and so on. The dotted line in *Figure 2.5* represents the support from visuals such as flow charts, and classification trees to facilitate comprehending content knowledge and developing academic skills. Beckett and Slater (2005) further pointed out that these subheadings only served as an explicit reminder to raise

students' awareness of equal importance of three academic domains in educational settings. In addition, students' weekly diary is designed to receive students' self-report on their academic progress in terms of language, content and skills.

Figure 2. 5 The Project Framework (Beckett and Slater, 2005)



2.7.3 The investigation of students' experience

A 14-week study was conducted with 57 students and their ESL teacher in an exchange programme at a Canadian university. This study aimed to explore students' learning experience using the Project Framework. The course syllabus, the programme plans, the teachers' reflections, the students' weekly portfolios, and their end-of-term reflections were scrutinised with follow-up interviews.

From a teacher's perspective, the initial interviews with students help to decide that students should learn English language and academic skills by using disciplinary content. Then the teacher provided the students with the planning framework graphic,

the project diary and an example of a project with suggested tasks. Students were required to implement their own project using this framework. An analysis of students' self-reports showed that all participating students were able to make use of the Project Framework effectively. The data of interview and reflections further confirmed the students' growing understandings of the importance of CBI to ESL/EFL acquisition as well as interrelationships between language, content and skills learning at the end of the study. Besides, the Project Framework also boosted students' self-motivation by encouraging them to diagram their own learning objectives in a graphic, which could be subsequently used to manoeuvre the learning process in the project. Beckett and Slater (2005) finally concluded that the Project Framework is a useful tool to prepare students for future academic studies, and it emphasised the essential aims of ESL teaching.

2. 8 A Tripartite Curriculum for teaching Business English

In the Business Teaching field specifically, Zhang (2007) proposed a Tripartite Curriculum based on ESP ideas and business discourse analysis, in order to promote learners' multiple skills in business simultaneously, rather than teaching language skills and business knowledge separately.

2.8.1 An ESP perspective

ESP as the best known and the most documented approach of CBI (Briton, Snow & Wesche, 2003), focuses on the analysis of communication needs for different target learners, rather than on a particular language, methodology or teaching materials as a product (Hutchinson & Waters, 2002). Zhang (2007) claimed that Business English has been regarded as a branch or variety of ESP for long. He analysed Dudley-Evans & St. John's (1998) criteria of ESP in terms of its absolute and variable characteristics, and pointed out that, ESP may not answer all the questions for Business English, because ESP emphasises knowledge of language in use to meet learners' specific needs, but it does not take into account what knowledge itself is in the first instance. For example, as he illustrated, Ellis and Johnson's (2002: pp.7-9)

suggestions on designing programmes for novice learners looked at Business English from the perspective of 'sense of purpose', 'social aspects' and 'clear communication' in general, yet the systematic investigation of English in use especially in business contexts.

2.8.2 A Language-as-discourse view

The concept of 'register' (Halliday, 1978) emphasises the language context in which specific language forms are used and provides a framework for illustrating the characteristics of business English. This framework relates the variables of field, tenor, and mode to three contextual variables including subject content, interpersonal relations and the channel of communication.

In terms of 'field', Zhang (2007) pointed out, there is an essential difference in lexis between Business English and daily English due to the role participants play (*e.g.* manger, accountant and seller *vs.* father, son and husband), the circumstance involved (e.g. office, department, and boardroom *vs.* dining room, bedroom), and the process which takes place (*e.g.* analyse, sell and deliver *vs.* pray, gossip, and marry). Concerning 'interpersonal relations', Zhang (2007) argued, the networks in the business world involving business-customer, business-business, and internal department-department relations (Ellis & Johnson, 2002) are complicated. Some differences such as the power differential in job interviews (Button, 1992), at corporate meetings (Bargiela-Chiappini & Harris, 1997) and during sales negotiations (Charles, 1996), widely exist among business English learners. These differences, as further argued by Zhang (2007), play a paramount role in shaping the structure of the interaction and strategic use of language. With regard to 'mode', in addition to the widely-received technology and the multimodal nature of business communication, the phases and goal-orientation of language in use during the business interaction include the 'seven-move promotional structure' (Bhatia, 1993) and 'hierarchically ordered units' in corporate meetings (Bargiela-Chiappini and Harris, 1997).

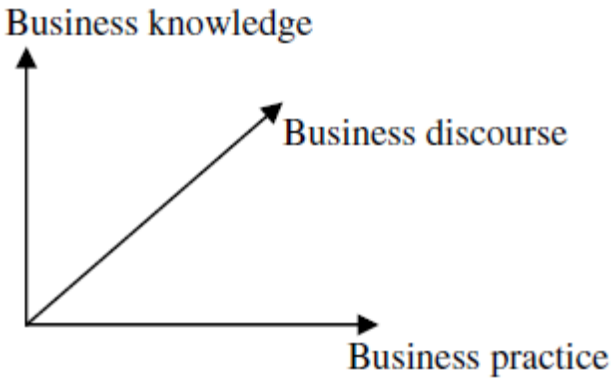
Zhang (2007) concluded that Business English is a complex phenomenon including a number of variables described above, other than just a list of specialised lexical, syntactic, and discoursal features. Drawing the insights into Business English from these two perspectives together, Zhang (2007) offered a working definition of Business English as follows,

> Business English involves the teaching of the system of strategic communication in the social and economic domain of international business in which participants, adopting/adapting business conventions and procedures, make selective use of lexico-grammatical resources of English as well as visual and audio semiotic resources to achieve their communicative goals via the writing modality, speaking modality, and/or multi-modality. (Zhang, 2007, p.406)

2.8.3 Teaching a tripartite curriculum

On the basis of Bhatia's (2002) notion of professional expertise, Zhang (2007) proposed a curriculum framework for teaching of Business English, which consists of three essential dimensions – business knowledge, business practice and business discourse (see *Figure 2.6*).

Figure2. 6 The Structure of a Tripartite Curriculum, (Zhang, 2007)



It can be seen from *Figure 2.6* that the curriculum incorporates three dimensions of knowledge and skills. The vertical axis stands for the disciplines in business studies such as economics, finance, marketing, and accounting. However, the subject

knowledge used in these courses aims neither to facilitate functional treatment in the business world nor to stimulate students' language skills. Instead, as a part of the semantics of Business English, the systematic business knowledge normally prepares students for joining in the disciplinary community with disciplinary cultures, and provides them with academic training opportunities to gain an in-depth insight into business knowledge. These objectives were not realised in earlier curricula designed for ESL students for business purposes in China. Besides, using English as the language of instructions in these courses may help the students to get familiar with the way of dealing with business knowledge in the target language.

The horizontal axis in *Figure 2.6* refers to business practices which include procedures, conventions, politeness systems, strategies and tactics for addressing a variety of objectives in the business world. These courses focus on the critical awareness of business practices in addition to procedural and factual information. Therefore, some lectures and seminars need to provide students with chances to translate their critical awareness of business facts into the interactive business practice. Zhang (2007) pointed out that English is still the preferred instructional language, because students would feel more useful and comfortable participating in business activities with second language.

The oblique axis in *Figure 2.6* represents the business discourse, which involves study skills, business skills and language awareness, as illustrated by Zhang (2007). The study skills refer to academic skills such as writing, discussion and presentations. The business skills refer to communications such as meeting, negotiating, socialising, telephoning and corresponding. The language awareness includes all sorts of language activities to improve students' language abilities in business contexts. The teaching of these three aspects of business discourses can be accomplished in simulation sessions and case studies. As a result, students are able to develop their awareness of business discourses through the classroom practice.

To sum up, Zhang (2007) claimed that the aforementioned three components of business expertise within this tripartite framework are interdependent and mutually supportive. Business studies and business practices address the semantic content of business English, and they are supported by business discourses which offer a platform for students to demonstrate understanding of business knowledge as well as practice business and academic skills. He further concluded that this tripartite framework would develop the Business English curriculum beyond lexical, syntactic and discoursal features of a language. Instead, these features may be demonstrated in socialised interpersonal relations and language communicative goals in the business community.

2.9 CBI in higher education

In recent years, a significant expansion for CBI has become widespread in foreign language teaching at postsecondary levels (Snow, 2001). Two book-length volumes were published with a focus on the integration of content and language in university academic contexts across the world. The book *Integrating Content and Language: Meeting the Challenge of a Multilingual Higher Education* (Wilkinson, 2004), covering the papers presented at the 2003 ICL Conference in University of Maastricht, provides a number of snapshots of current CBI development in European higher education institutions from diverse perspectives. This conference followed an earlier one held in South Africa in March 2001, focused on 'Integrating content and language: Providing access to knowledge through language', and revealed new challenges to university lectures in the context of increasingly wider access to higher education for previously marginalised student populations whose first language is not the target instruction language (Stoller, 2004). Another book, *Content-based Instruction in Higher Education Settings* (Crandall & Kaufman, 2002), addresses the CBI negotiation between ESOL teachers and disciplinary specialists in higher education. This book also documents and evaluates some CBI programmes to provide an insight into how they meet the dual expectations of subject disciplines and language needs of EFL/ESL learners. Besides, in the US, *CARLA* (the Centre for

Advanced Research on Language Acquisition) at the University of Minnesota launched *CoBaLTT* (the Content-Based Language Teaching) in 1999 to help K-16 foreign language teachers to tailor CBI curricula and offer the technological support.

FLAC (foreign language across the curriculum) suggests that students at post-secondary levels study university curricula in a foreign language, irrespective of what discipline is taught (Straight, 1994; 1997). This model supposes that teaching language in disciplinary areas provides all of the necessary conditions for language acquisition. For example, in a FLAC programme at the University of Minnesota, students participated in weekly seminars through the target language to make a comparison of news coverage in the American press and the counterpart information released in Spanish, French or German. Another example was that an anthropology professor, an anthropology graduate student and an East Asian studies department professor at Brown University co-designed 'Japanese Culture and Society', an disciplinary course with an additional Japanese component.

FLAC programmes normally require the collaboration between content teachers and language teachers, and a certain level of students' proficiency in the target language on which their language skills can be maintained and further developed. Stryker and Leaver (1997) cited Klee and Metcalf's (1994) remarks to demonstrate four discrete objectives of FLAC programmes. First, it substantiates the benefit of acquiring a foreign language for undergraduates. Second, it cultivates students' analytic and critical abilities in the target language. Third, it encourages the ongoing development of students' language skills. Fourth, it offers opportunities for faculty to use their foreign language skills in the humanities and social sciences (Straight, 1994: p.104). A number of FLAC programmes are described in publications, but the handbooks and cookbooks covering skills-based activities, syllabus, classroom tasks, and teaching materials, as well as workshops on what works and what does not are needed to reveal some FLAC classroom details (Straight 1994: p.138).

2.9.1 EFL programmes for students of mathematics and computer science

Kol's (2002) case study of content-based EFL courses with a focus on students' literacy skills in the academic discourse of mathematics and computer science was conducted at Tel Aviv University in Israel. The rationale for selecting the theme-based model, the process of developing the course, content-area text selection and the collaboration of content area faculty were demonstrated. These courses were non-credit bearing and had four class contact hours a week during a fourteen-week semester. The attendance and performance on these courses were considered in students' applications to the graduate school, though their course marks were not included in their GPA (grade point averages).

In terms of teachers' backgrounds, Kol (2002) argued that the disciplinary expertise was not necessary, and teaching these courses should not make the language instructor a pseudo-disciplinary teacher. However, she also claimed that 'teaching of rhetoric cannot be divorced from the teaching of content, and therefore English faculty who have little or no knowledge of a discipline cannot adequately teach or respond to discipline-specific writing'(Swales, 1990: p.215). In fact, many EFL teachers of these courses either received academic training in the subject areas or had a relevant disciplinary background.

Kol (2002) analysed the features of reading skills for mathematics which are dense, concise, and minimal. She pinpointed those skills applicable to mathematics and science texts such as acquiring the specialised vocabulary, understanding referents, developing familiarity with cause/effect connectors, identifying and understanding definitions, learning from examples and transferring information. However, she further pointed out, many general reading skills such as identifying main ideas and topic sentences, scanning for details and skimming for key ideas may not be applicable for reading mathematics texts. The reason is that the mathematics textual arrangement is highly sequential, which determines the orderly progression from previous information to new information during comprehension. In this sense, it is

important to investigate the distinct nature of the discourse style and the structure of a discipline to offer some valid learning strategies for students.

Therefore, in order to help students acquire knowledge of how to deal with mathematics text and gain confidence in their ability to cope with such texts, a special course for students of mathematics was designed with short texts containing new information instead of using original texts beyond the scope of the language course. A needs analysis including interviews with students and professors of mathematics as well as a student questionnaire was conducted to select appropriate texts for target students. This analysis expands the range of text topics to meet student choices. Those materials such as introductory chapters from mathematics textbooks based on clarity and exposition available for first-year students and language teachers were selected. The text chosen for computer unit derived from a computer language manual, a popular scientific book, a computer magazine or a general science magazine which contains pictures, diagrams and graphs. Moreover, as argued by Kol (2002), learners construct meaning by interacting with the text, and they move from the text to literacy skills which are taught as a means to facilitate this interaction, not being the other way around. The text is considered as a carrier of meaning, rather than an example of usage.

Kol (2002) identified this course as a theme-based model, because the syllabus was built around topical units of authentic resources and teacher-generated materials and focused on vocabulary instruction, reading skills, writing skills, and oral presentations. In addition, a one-off final examination was carried out to evaluate students' comprehension skills and abilities to compare information at the end of this CBI programme.

2.9.2 A hybrid EAP programme to promote disciplinary knowledge and expertise

Stoller (2002) argued that, in spite of theoretical and practical differences in diverse contexts for instructions, contrasting perspectives on integration of content and

language learning, and varying expectations regarding the student's responsibility for content learning, most CBI approaches have the following features:

- they promote the integration of language, content and strategy learning
- they view language as a medium for learning content and content as a resource for learning and improving language
- they use content materials to drive most instructional decisions
- they endorse purposeful and meaningful language use in the classroom
- they encourage active student participation
- they focus on the development of discourse-level abilities (p.109)

Stoller (2002) described a core CBI course as one component in a 'hybrid EAP curriculum' at Northern Arizona University in the U.S. A majority of students in this programme were provisionally admitted international students with TOEFL scores ranging between 450 and 525, who still need to improve their academic English before beginning their full-time university studies. Although these students came from different language, educational, and cultural backgrounds with diverse academic interests, the EAP curriculum could suitably meet their general academic, linguistic and acculturation needs because they entered the programme with intermediate or high intermediate language proficiency in addition to the desire for university qualifications. This CBI course had 10 meeting hours per week and aimed to fulfil the requirement of university degree-granted programmes by offering academic support. The objective of this course was to encourage students to develop academic language skills, learning strategies, and self-independence.

Stoller (2002) further pointed out that many CBI language programmes only used course content as a vehicle for helping students acquire language skills and held students accountable for learning language rather than content knowledge. This is not the case for a commitment to promote language and content learning. These misconceptions were reflected in course objectives, the materials selection and design, classroom tasks as well as course evaluations. Therefore, Stoller (2002) emphasised the importance of promoting the mastery of content knowledge in CBI

classrooms. Students need to be exposed to input from a variety of content resources including instructor-compiled content such as primary and supplementary readings, instructor-generated content such as worksheets and dictocomp passages, task-generated content such as group discussion and problem-solving activities, as well as external content such as field trips and guest speakers. Stoller (2002) also claimed that revisiting content for different purposes and synthesising information from multiple resources may help to master disciplinary knowledge.

To develop disciplinary expertise and to demonstrate it in exams and projects was another purpose of this CBI course. The promotion of expertise can be seen as a direct outgrowth of the commitment to the acquisition of knowledge. The former cannot exist without the latter. The development of expertise can be realised in a sequence of pedagogical tasks which may provide students with increasingly complex but manageable challenges, and opportunities to reinvest skills to solve problems with appropriate support and feedback. Stoller (2002) further suggested that classroom tasks should be manageable but cognitively progressive, hence encouraging students to achieve language and content learning objectives of the mainstream class.

These tasks also require students to negotiate new knowledge and use the acquired skills to meet new challenges as more disciplinary content is incorporated into the lesson, rather than simply interacting or exchanging information. For example, in this CBI course, students took notes while reading a new text. They exchanged notes with a classmate who read a different text read over their classmate's notes. After that they met together to explain and confirm understandings and correct misunderstandings. The integration of modelling effective behaviours, coaching students with different types of questions and feedback, as well as scaffolding instructions to cultivate learner autonomy is considered as a feature of cognitive apprenticeship. This integration can also help students develop expertise in a specific discipline. In addition to the feedback students received on their language development, Stoller

(2002) also emphasised the importance of the feedback on the mastery of content materials because the ultimate purpose of CBI course is to help students demonstrate disciplinary knowledge, make argumentation and develop ideas, and any shallow and off-topic responses to content-driven tasks cannot meet this demand of CBI courses. Finally, Stoller (2002) put forward a six T's approach - themes, topics, texts, tasks, threads, and transitions - to illustrate the coherence of the CBI curriculum. This approach would help CBI practitioners define and structure thematic units, adopt, adapt and develop appropriate materials, plan and adjust lessons, and prepare students for mainstream courses with content linkages.

2.9.3 An adjunct bridge programme to develop language and content learning

Iancu (2002) described an adjunct bridge programme for international students awaiting full admission to a private liberal arts school at George Fox University in the US. Instead of combining one ESL course with a content course, this programme was developed from an intensive English programme (IEP) and consisted of a pentad which linked a general content course with four language skills course. If the participating students whose English proficiency is as low as 450 on TOEFL successfully completed this content course and each of the ESL courses, they would exit the programme and enrol as full-time students. The content programme such as history and sociology course carried general education credit. The ESL programme aimed to develop academic English skills based on the disciplinary content drawn from the general education course.

The listening and note-taking course attempts to develop students' listening skills. These listening skills could help students understand lectures and other classroom interactions and take notes to reflect this understanding. Some strategies for note-taking including examples of cues that signal various types of rhetorical organisation offered by the ESL listening professor were emphasised and applied throughout the semester in content courses. For example, students learned strategies for taking notes in an efficient way, leaving gaps in their notes and referring to other

available resources to fill these gaps later on. They were also told to make use of verbal (e.g. a number that indicates the subdivisions of topic) and nonverbal (e.g. a professor saying ‘okay’ and physically returning to the podium to conclude a main point and introduce a new one) signals to organise their notes. Moreover, a test that which embodied matching, multiple choice, true/false and short answer questions was used to examine students’ ability to explore the key information from their notes. A highlight of this programme was a one-week regular content observation completed by students. Consequently, the listening teacher was able to make a better evaluation of students’ readiness to fully participate in the university programme.

The reading course was designed to develop students’ academic reading skills to tackle those reading materials from content courses. These skills include deciding effective ways to get access to all kinds of reading assignment, using pre-reading tactics, finding out main ideas and crucial details, expanding vocabularies, and speeding up reading velocity. For example, they were asked to read assigned texts and complete classroom tasks based on the reading such as identifying topic sentences and supporting ideas, writing summaries, and answering questions. In order to tackle a number of new vocabularies in content reading materials, students were required to learn word analysis skills and commonly used affixes and roots, and then apply these techniques to content reading in their weekly vocabulary laboratory. Students also attended reading laboratory to increase their reading speed while maintaining a certain level of comprehension. Weekly tests and book reports were used to evaluate students reading skills. Iancu (2002) pointed out that, the reading lesson in this programme required an experienced academic reading teacher to develop reading materials from a disciplinary textbook instead of using those commercially available ESL reading textbooks or materials.

The primary objective of the writing course was to help students improve fluency, clarity, and correctness of writing and to teach students how to write a research paper. This course was similar to those advanced-level ESL writing courses and linked to

the content course. The students' writing work was evaluated by the writing professor based on its organisation, clarity, grammatical correctness, and appropriate use of quotation, citation, summary, and paraphrase. By contrast, the subject professor focused on the accuracy, completeness, development, depth of content and the quality of sources. Consequently, the student may receive two different marks and feedback for the same paper.

The purpose of speech lessons was to develop students' public speaking skills for a specific discipline in various situations including interviews, panel and group discussions, role playing, speeches and debates. This course also helped students improve pronunciation and focused on formal presentations. Any active contributions to the content course such as making a comment, raising a question and participating in a class discussion were awarded as credit for students, based on the student self-report with confirmation from the listening and subject professors. Students were also encouraged to gain confidence in speaking in a mainstream class by devoting themselves to small-group discussions in this speech less.

On top of these four skills ESL courses, the content course played an important role in this programme, as emphasised by Iancu (2002), because students would be motivated to pass the course as their undergraduate studies requirement, even though they lacked intrinsic interest in the discipline. This kind of content course was composed of lectures, reading assignments, exams and some written work, which were predetermined by content and ESL professors collaboratively. For example, some ESL teachers were invited to the content classroom to facilitate group discussions. Likewise, some content professors visited ESL classrooms to learn about the students and their concerns, convey information, and respond to their questions. The effectiveness of this adjunct programme relied heavily on these content professors.

As an instructor of this ESL programme linked to university studies, Iancu (2002) used to find herself struggling to seek the equilibrium between developing academic language skills and content mastery in an adjunct model. Students usually considered purely skills-based ESL courses to be time- and energy-consuming and irrelevant to their disciplinary requirement, though these courses may promote students' morale in the very beginning. Consequently, the programme's fragmented configuration turned out to be less effective in terms of reinforcing and improving students' academic English skills. Therefore, this integrated and cohesive bridge programme may help international students develop their English proficiency and academic skills by meeting the same demand for general education programmes. Iancu (2002) concluded that there was a distinct improvement in students' English skills and mastery of disciplinary with high motivation and noticeable determination at the end of this programme.

2.9.4 The 'Body Shop' Case Study: the case study method in Business English classrooms

Although the theoretical excellence of the case study method has been recognised for many years in SLA, its application in teaching-learning situations starts to draw researchers' and practitioners' attention only in recent years. In order to investigate the variables such as students' profile, the characteristics of the teaching-learning context, and teachers' knowledge of subject content and teaching methodology, Esteban and Cañado (2004) described case study of 'Body Shop' as a part of postgraduate programme in Foreign Trade in the University of Jaén, Spain. The teachers involved in this case study course were those holding a degree in English Studies and teaching English for Business degrees. In other words, these teachers played a role of teaching English rather than Social Sciences, and they had interest in the students' content areas but were not the experts in these fields. As pointed out by Esteban and Cañado (2004), these teachers' backgrounds, the difficulty in separating language from content teaching, as well as the students' comparatively lower levels of English proficiency posed potential challenges to the application of the case study method in this teaching-learning situation.

A workshop was held to better prepare this case study programme by setting teachers in a sympathetic position with the target students, and boosting teachers' confidence in putting the case study method into practice. The participants ranged from current students in the Faculty of Social Sciences and Law Studies to those who had already held these degrees, either from University of Jaén or other universities. The level of English of these students was intermediate/upper-intermediate. The specialised areas among the participants were heterogeneous, and all of them were unemployed during studying. Fifteen participants were selected out of one hundred candidates with high motivation to learn business courses and English.

The programme attempted to incorporate the *Body Shop* Case Study into English modules. These modules of English consisted of two phases, each with a fifteen-hour contact time. The first phase was to develop students' reading and writing skills. For example, skimming, scanning, reading for gist, reading speed and the ability to infer the meaning of new vocabulary were emphasised in reading lessons. The writing courses focused on drafting business correspondence, presenting *curriculum vitae* and writing business reports. The aims of these lessons, as argued by Esteban and Cañado (2004), were to provide students with reading strategies for dealing with articles in the case study phase, and to teach them how to write the final report at the end of the case study. One month after the reading and writing lessons, the second phase which concentrated on speaking and listening skills in the form of debates and meetings, was delivered based on the results of the survey on participants' linguistic demand. Besides, the decision to link content between the English modules and the case study was likely to ease the time pressure to deal with a large number of documentation readings.

Meanwhile, after analysing teaching-learning contexts, some modifications were made to the original design to further fit this case study into the students' profile. Two warm-up questions regarding the legal and commercial roles of advisers in a company were added to promote the debate. The 'case' phase was introduced to

provide students with knowledge of history and development of the 'Body Shop Case Study'. This would help them better understand the scenario. The time required to prepare recommendations extended from two weeks to one month. This would allow more time for students to digest the relevant documentation.

Three linguistic components –grammatical aspects and vocabulary, strategies to organise and read data, and the group review of language meetings – were introduced as the input. Grammatical aspects include adjective-formation with the *–less* suffix, use of the *–ing* morpheme, relative and infinitive clauses, terminologies, and recurrent vocabulary. Strategies for reading the documentation are concerned with how to organise articles based on themes and chronological sequences and how to distinguish symptoms from real problems. Likewise, the revision of professional skills of the meeting (e.g. verbal and non-verbal strategies) was also complemented to improve students' linguistic and communicative competence required in the development of business meetings. In addition to language input, some modifications were also made in the information-gathering stage to promote students' self-autonomy and self-motivation. All of these steps were presented during the final session of the English module in the first month (reading and writing). Students were offered eleven articles pertinent to *Body Shop Case Study* to read as the basis for the documentation (Esteban & Cañado, 2004).

It took students approximately one month to digest the reading materials of the case study. In the meantime, the English module of listening and speaking was delivered. During the penultimate session, the SWOT (strength, weakness, opportunity and threat) analysis and findings phases were implemented, followed by the peer-trainer evaluation to check students' understanding of the Body Shop documentation. In the last session, students were required to draft the report summarising and justifying the agreed solutions to the Body Shop's problems before participating in the mock meetings with the American Board of Directors. Esteban and Cañado (2004) pointed out that the distinctiveness of the Case Method lies in its development of logical and

coherent argument during students' discussions of solutions to real business problems (Piotrowski, 1982). Finally, a new feedback stage was added to evaluate the students' progress throughout the programme.

As one of the noticeable challenges in Case Method instructions, the evaluation of students and the effectiveness of the case study itself can be influenced by learner-centred and task-based activities. Esteban and Cañado (2004) argued that the traditional assessment which prevents collaboration in the classroom and promote a competitive atmosphere appears to be inappropriate in the Case Method. In addition, as claimed by Dudley-Evans & St John (1998: 210), the genuine effect of case instructions may tend to be increasingly evident after a period of time. In order to promote more effective course management and curricular innovation, an array of informal qualitative methods regarding the communicative evaluation were adopted in this course.

These methods included peer and teacher feedback, teachers' observation, note-taking, student diaries and so on. For example, the students' improvement on reading competence was observed based on the types of questions they raised and the decreasing number of doubts they had during the documentation reading phase. The mock meeting was assessed based on the note-taking of each participant's language proficiency, presenting points of views, and other variables. The interviews with each of fifteen participants were conducted after the conclusion of the English Modules to assess the students' competence in reading, writing, listening and speaking. Moreover, the direct and indirect feedback from the students at the end of the course revealed their positive attitudes toward the case study instruction due to its utility in the real business situation and its inspiration for oral interaction and motivation to read.

Eventually, Esteban and Cañado (2004: p.157) summarised several actual and possible improvements perceived in this *Body Shop Case Study*. The case study helped students achieve their full potential for 'learning, reflection and research'.

Students' English proficiency in business contexts was improved. Students' abilities to 'spot issues in problematic situations', and 'to identify possible alternatives for action' were increased. Students were given the opportunities to gain expertise and analytical skills (SWOT analysis and findings). Students' became confident in dealing with the dada, searching for specific information, and 'differentiating between fact and opinion, and between trivial and vital information'. They had to make use of the information from the documentation to 'make decisions, predict outcomes, and think critically and creatively'. They learned to transfer subject content knowledge and problem-solving skills from one module to another. The effectiveness of the case lies in its 'individual analysis, group and class discussion, report writing, self- and peer-evaluation, and students' and teachers' feedback'; Students' confidence in learning was also elevated.

2.10 Evaluation of CBI programmes

One of the major challenges in CBI is how to evaluate programmes. There are some commercial tests in the market available and appropriate occasionally for some CBI programmes, but teachers are expected to be held responsible for devising tests to gauge students' progress in their programmes, according to Turner (1997). She pinpointed that, developing suitable tests of students' progress in CBI programmes can be intractable and complex, because the characteristics of content and the content instruction may have an impact on the language instruction. Therefore, the test designed for a particular topic may not work for other theme-based classes on a different topic, and there are also greater demands on the teacher developing language tests for sheltered and adjunct programmes.

2.10.1 Evaluation of communicative competence

The prevalent communicative language learning and teaching since the late 1970s required the language assessment to focus on 'the ability to function effectively in the target language in real-life contexts' (Linskin-Gasparro, 1984), rather than discrete-point grammar knowledge (Stryker & Leaver, 1997). The systematic

development in evaluation of reading comprehension, listening comprehension, writing, and subsequent speaking proficiency were described in ACTFL (The American Council on the Teaching of Foreign Languages) and ILR (Interagency Language Roundtable). For example, the early version of *ACTFL Provisional Proficiency Guidelines* (Savignon, 1985) made a list of descriptions of linguistic behaviours from superior levels to novice low levels across four language skills. Similarly, the Testing Committee of the ILR explicated the level descriptions for reading comprehension, listening comprehension, and writing.

ACTFL and ILR tests were widely used in designing and evaluating CBI programmes, according to Stryker and Leaver (1997). However, these tests appear to be inadequate to measure writing skills and content knowledge, because they are only to measure their global listening, speaking and reading skills, while excluding content learning. Mastery of content is regarded as an indispensible objective of CBI programmes. For instance, in some FSI (Foreign Service Institute, the training school of the United States Department of State) programmes implemented in Russian (Leaver, 1997), Arabic (Ryding & Stowasser, 1997), Indonesian (Chadran & Esarey, 1997), and Spanish (Stryker, 1997), as well as some DLI (Defense Language Institute, the military language school in Monterey, California) programmes experimented in German, Russian, Czech, and Ukrainian (Corin, 1997), only oral and reading skills were examined, and students' content knowledge and writing skills were not formally evaluated. By contrast, FLAC programmes are usually concerned with students' performance in disciplines, rather than measuring the language development (Stryker and Leaver, 1997).

2.10.2 Dual purposes of the assessment in CBI programmes

As argued by Met (1999), the course priorities and positions on the CBI continuum (see *Figure 2.1*) will determine how to assess students' learning outcomes. In content-driven courses, learners' mastery of subject content should be emphasised because learning subject knowledge is the primary objective in this type of approach.

Besides, a well-designed content-driven course may enable students to access and demonstrate content knowledge despite their limited language proficiency. However, Met (1999) also suggested that, it is desirable to integrate language components into assessment in content-driven programmes, because content is regarded as the vehicle for language development in all forms of CBI programmes. By contrast, language proficiency is more likely to be assessed than content mastery in language-driven courses due to the key purpose of this type of programme. Likewise, some subject knowledge is expected to be integrated into the language assessment because content mastery is considered as the facilitator of language-learning processes. In the adjunct model, both language and content ought to be assessed because of dual purposes of the programme. Briton, Snow & Wesche (2003) claimed that instructors ought to be aware of this duality when deciding what content to be measured in a given evaluation procedure.

Some CBI instructors also attempted to explore the possibility of testing both content and language through the 'proficiency-based achievement' (Campbell & Duncan, 2007; Stryker & Leaver, 1997). In an experimental elementary Russian course at the DLI, as described by Stryker and Leaver (1997), students took a multiple choice test on Russian history. Implicitly, to accomplish these tests, students not only need to demonstrate disciplinary knowledge, but also need the language competence to understand the test questions. The Czech instructors at the DLI in a CBI course also evaluated students' learning outcomes based on a grade for content and a grade for language (Corin, 1997).

Klee and Tedick (1997) designed an 'assessment battery' to measure learners' reading, writing, listening and grammar in a Spanish programme to identify their pre- and post-programme academic language proficiency improvement. This assessment battery (Klee, Cohen, and Tedick, 1995) was developed based on LAAS (California Language Ability Assessment System), at a relatively easier level to serve the purpose for the Spanish FLIP (Foreign Language Immersion Programme). The

battery was assembled with reading, writing, speaking, listening and grammar testing items around a disciplinary topic. In the reading section, students were asked to answer seven comprehension questions after reading an eight-hundred-word academic text in Spanish about 'role of a democracy in Latin America'. In terms of writing skills, students were required to write an essay of 150 words in response to a prompt on 'whether the respondent foresees any change in men's and women's roles in Latin American in the future'. Students also listened to a ten-minute lecture by a native speaker on the topic of 'women's contribution to the workforce in the colonial period of Latin America', and answered the relevant questions. Concerning speaking, students participated in an oral proficiency interview based on ACTFL guidelines. In addition, some grammatical items based on an article about 'sexism' were also included.

2.10.3 Language considerations in the assessment

There are some problems in respect to evaluating students' mastery of subject content knowledge. Many techniques for assessing CBI programmes assume intermediate to advanced language skills, as pointed out by Briton, Snow & Wesche (2003). However, there is a risk that students' weak second language skills and lack of cultural knowledge in the target language may have a negative impact on their learning outcomes. As a result, they appear to know less than they actually know. This may affect the validity of evaluation in CBI programmes. Some language adjustments such as emphasising more frequent, briefer, and less verbally demanding test items need to be made, in order to make the assessment fairer for those disadvantaged second language speakers.

For example, in a sheltered psychology programme at the University of Ottawa, weekly short-answer tests based on updated materials throughout the year were used instead of the essay-type midterm examination. These tests kept students up-to-date in their studies and provided prompt feedback to teachers about how well students learned the discipline. Another adjustment made was that students in some sheltered

courses were allowed to choose to take final exams in either their first language or second language. However, most students chose to complete the exams in the target language. In the UCLA adjunct model, students were given a fortnight to get familiar with the language discourse in writing assignment so that their language marks during this period of time were not counted toward the final marks. In addition, the diversity of tasks in the evaluation ensured that students would not be unfairly disadvantaged by singular test formats. Briton, Snow & Wesche (2003) further argued that, markers need to evaluate non-native speakers' essay questions or research papers with greater tolerance, concentrating on the organisation, comprehensiveness and accuracy of content, but it is necessary for them to keep alert to the non-native argumentative style, discourse organisation and misuse of idioms.

Another concern about the evaluation of students' second language development is regarding how to determine what aspects of language proficiency need to be evaluated, as pinpointed by Briton, Snow & Wesche (2003). Programme objectives in terms of language skills and other study skills ought to be clarified between different types of second language outcomes, such as general language skills and specific function skills in tackling certain kinds of information and tasks.

Apart from the underlying language knowledge, the concept of 'general proficiency' also refers to communicative language skills need to handle academic tasks. This kind of test may facilitate the comparison of students' language proficiency prior and subsequent to the programme. In CBI programmes, it is particularly important to keep track of students' progress in developing language skills, hence teacher-generated tests and assignment are usually used to assess students' language learning outcomes. These tests may display a realistic picture of students' second language capabilities in a specific disciplinary context, and provide detailed information about pedagogical and administrative appropriateness of the programme.

2.10.4 Other assessment alternatives for CBI programmes

The publication of the *Standards for Foreign Language Learning: Preparing for the 21st Century* in 1996 described 11 national standards of skills and knowledge for language professionals in the USA. However, the performance standard for mastery of content knowledge was not specified, as argued by Campbell & Duncan (2007). Therefore, designing and developing new standards-based performance evaluation instrument has become a particular challenge in the CBI community. The term 'standards-based performance assessment' refers to the proficiency-based assessment which aims at examining students' language proficiency in real life tasks.

Following this recommendation, some projects which reflected the development and validation of 'standards-based performance assessments' emerged. For example, IPAs (ACTFL Integrated Performance Assessments), which served as both instructional and assessment model, enabled classroom teachers to evaluate students' language proficiency in a disciplinary area based on standardised criteria (*ACTFL Performance Guidelines for K-12 Learners)*. Another example is the 'alternative assessment' to evaluate learners' language competence in the classroom using a variety of assessment instruments such as portfolio, teacher observation, peer assessment, self-assessment, short-term projects, presentations, and conferencing, other than tests (Austin & Campbell, 2004: p.100). As a variant of the 'alternative assessment', according to Wiggins (1998: p.12), the 'educative assessment' is established on two critical rationales: first, the assessment should be deliberately designed to offer students authentic tasks in real life contexts; second, the rich and useful feedback and the use of feedback by both students and teachers should be included in the assessment.

More recently, the DA (dynamic assessment) proposed by Lantolf and Poehner (2004), emphasised the mediation or assistance offered by examiners or evaluators during the examination in order to collect information about students' learning progress and further develop their academic abilities. The *LinguaFolio phenomenon*,

another type of ‘alternative assessment’ has been widely used in the K-12 area in the US to increase students’ awareness of language learning processes, objectives and strategies.

2.10.5 Practical challenges in evaluation

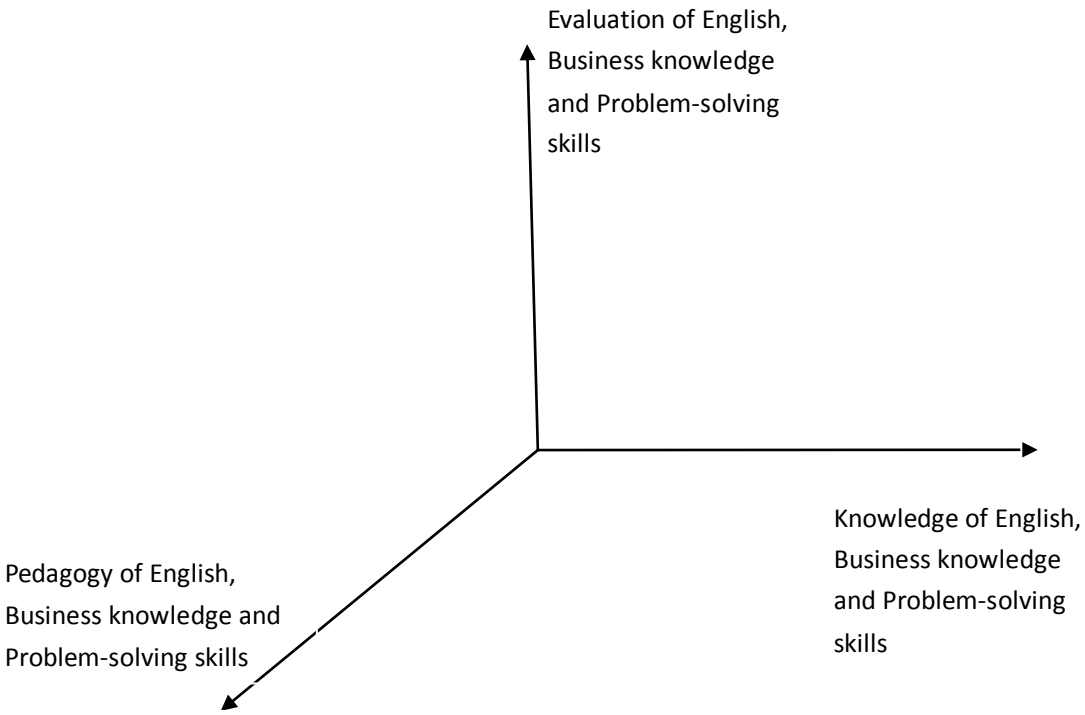
Some careful attention should be given to evaluation procedures including pretesting of items, statistical analysis and subsequent revision. The challenge of measuring both language and content in a CBI curriculum was addressed by Klee and Tedick (1997) comprehensively. The true extent of improvement of academic learning outcomes during short period of time (*i.e.* three months) cannot be accurately examined because of substantial administrative changes. It was difficult to recruit students to take the pre- and post- tests in spite of financial incentives. For example, only five participants successfully completed 1994 FLIP out of seven who were tested among the original eighteen students, and in 1995 only six students agreed to take the pre- and post- assessment battery out of eight who were able to complete the programme among the original eleven students. The limited quantitative data may have a negative impact on the reliability of this research. In order to compensate for some drawbacks of the quantitative study, they also resorted to case studies, journals, focus groups and exit interviews to explore students’ perceptions of their language improvements during the programme. Lynch, Klee and Tedick (2001) tried to further explore the relationship between social factors and language proficiency based on the learner’s self-report. However, the effect of the programme on students’ language development appeared to be not demonstrated in details.

Moreover, Stryker and Leaver (1997) expressed their concerns on funding issues in many CBI programmes. They pointed out that staffing teachers from different departments, preparing the syllabus and materials, and maintaining the progression need to be taken into consideration in most CBI programmes. As a consequence, a generous budget is normally needed to keep the programme immune from termination or scale-down halfway.

2.11 Academic literacy, pedagogy and evaluation of CBI curricular models

The different ESL teaching approaches (*see 1.4.1*), the connections between CBI and other current teaching approaches (*see 1.4.2*), the rationales behind CBI (*see 2.2*), the proliferating CBI curricular models (*see 2.3, 2.4, 2.4, 2.5, 2.6, 2.7, and 2.8*), a large number of CBI programmes in higher education (*see 2.9*), and the evaluation of CBI programmes (*see 2.10*) discussed as yet appeared to raise for the language teaching community three dimensions (*see Figure 2.7*) regarding the design and implementation of CBI programmes to meet communicative demands imposed on EFL/ESL learners pursuing their academic and professional careers, particularly in the business area.

Figure2.7 Three dimensions of CBI curricular models



These three dimensions include:

- What aspects of academic literacy need to be imparted in business English programmes for academic purposes?
- What academic achievement components ought to be evaluated in these programmes?
- What is the best way to integrate academic English, business expertise and skills into these programmes?

2.11.1 Three domains of academic literacy

The three traditional models of CBI, Chamot and O'Malley's (1996) CALLA model (*see 2.5*), Short's (2002) LCT model (*see 2.6*), Beckett and Slater's (2005) Project framework (*see 2.7*) and Zhang's (2007) Tripartite Curriculum in teaching Business English (*see 2.8*) all depict three essential domains as many CBI programmes at post-secondary level are concerned. Phrases such as 'language-driven', 'academic language development', 'knowledge of the target language', 'category of language' and 'language awareness in business discourse', albeit presented in different guises in these models, stand for the language acquisition as the first domain. This domain is composed of grammatical knowledge, basic language skills, academic language discourse analysis, metalinguistics and language learning strategy. Likewise, 'content-driven', 'high-priority content topics', 'knowledge of the social study content', 'the category of content', and 'business knowledge axis' refer to mastery of subject content which can be regarded as the second domain. Factual and procedural subject information and disciplinary culture are the examples of this domain. Moreover, influenced by the movement of the learner-centred and task-based teaching in recent years, the third domain – academic problem-solving skills – is introduced into these models. Distinguished from those language communicative skills in the SLA literature, this domain embodies students' diverse academic abilities to resolve the academic problems arising in the specific disciplines, such as drawing inference from data, critically evaluating the results and deducing the conclusion form premises in a case scenario.

2.11.2 Evolution of instructional methods

These CBI model variations not only identify the different areas of the academic literacy, but also attempt to find out the most pedagogically effective instructional methods to promote the development of language, content knowledge and problem-solving skills simultaneously in practical teaching contexts. This pragmatic consideration gives rise to the second dimension in *Figure 2.7* - the teaching-learning strategy and instruction. Initially, the three basic CBI models along the continuum

(*see 2.3*) demonstrate the different ways of introducing content into the language class dependent on differentiated teaching-learning situations. The early challenge form the choices among the language instruction, the content instruction and the combined instruction (adjunct model) has inspired the CBI community to continually explore some effective instructional methods to blend a variety of teaching objectives together.

The five-stage cycle of the CALLA instructional sequence (*see Figure 2.3*) promotes a learner-centred approach to improve the students' academic literacy in learning tasks with in-depth selected content. Using the 'sustained content' is also advocated in the SCLT (*see 2.4*) due to its strength of the intensive treatment of the disciplinary knowledge. The 'task cycle' of the LCT model (*see Figure 2.4*) aims to provide students with procedural knowledge and learning strategies under the task instruction to facilitate their academic performances. Similarly, the planning diagram (*see Figure 2.5*) of 'The Project Framework' portrays a comprehensive learning activity which involves the development of three academic domains at the same time under the explicit project instructions. Regarding Business English teaching, the fusion of business knowledge, practice and discourse into a 'tripartite curriculum' (*see Figure 2.6*) is proposed to offer a platform for the students to realise their academic learning objectives in collaborative classroom activities. As such, the case study method (*see 1.2.5 and 2.9.4*) is also considered to be used in the ESL/EFL classroom for business studies to cultivate students' academic abilities in holistic and comprehensive tasks. Therefore, the evolution of instructional strategy across these CBI models signifies the pedagogical movement from the single language or content-driven instruction to the task-based teaching.

2.11.3 Evaluation of academic achievement and instructional methods

The proliferating CBI models offer a variety of instructional frameworks with theoretical underpinnings for the practical teaching-learning context, yet the empirical evidence on effects of these instructions implemented in the classroom still

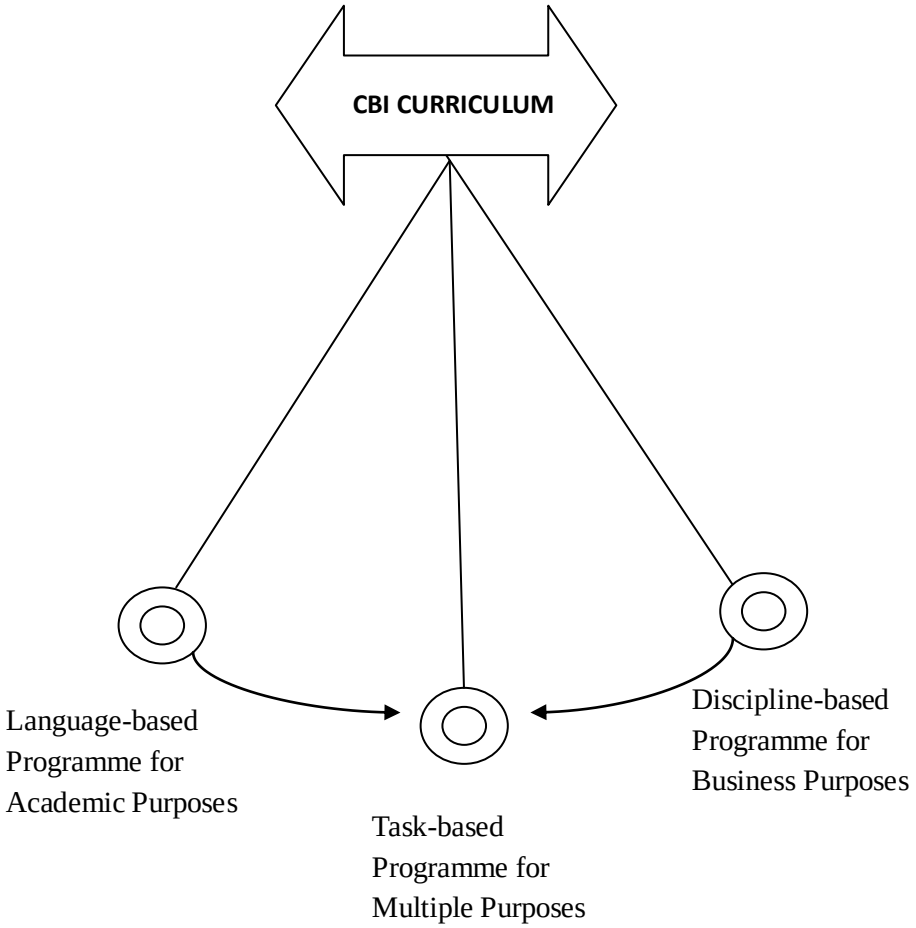
appears to be scanty. This is because the intricacy of incorporating the 'dual purposes' (to test language and content, *see 2.10.2 and 2.10.3*) into the assessment increases the difficulty in developing suitable tests of students' academic learning outcomes in CBI programmes. For example, the current English tests in China are less likely to serve the purpose of business English teaching, due to its exclusion of the specialist business knowledge (*see 1.3.2*).

After the domain of 'problem-solving skills' is brought in CBI programmes, the picture of evaluation can be more multifaceted and complex. Some assessment strategies for CBI programmes have been put forward to focus on the evaluation of students' academic performances in authentic tasks (*see 2.10.4*). A considerable amount of research has been conducted on the evaluation of the CBI instructional strategy such as the inquiry into teachers' classroom instructions (*see 2.6.2*) and the investigation of students learning experience (*see 2.7.3*).

2.12 Decisions on instructional methods

The shifting emphasis on content, language and problem-solving skills across the CBI programmes appears to indicate a trend that the CBI instructional strategy has been moving from the traditional models on the content-language continuum to the task-based approach - particularly the Case Study Method in the Business English teaching field (*see Figure 2.8*). Consequently, the introduction of this learner-centred and task-based instructional strategy may give rise to new challenges during the investigation of the interface of language and content, which is regarded as the 'most important pedagogical issue for CBI at all programme levels' (Wesche & Skehan 2002: p.225).

Figure 2.8 Three CBI programmes for different purposes

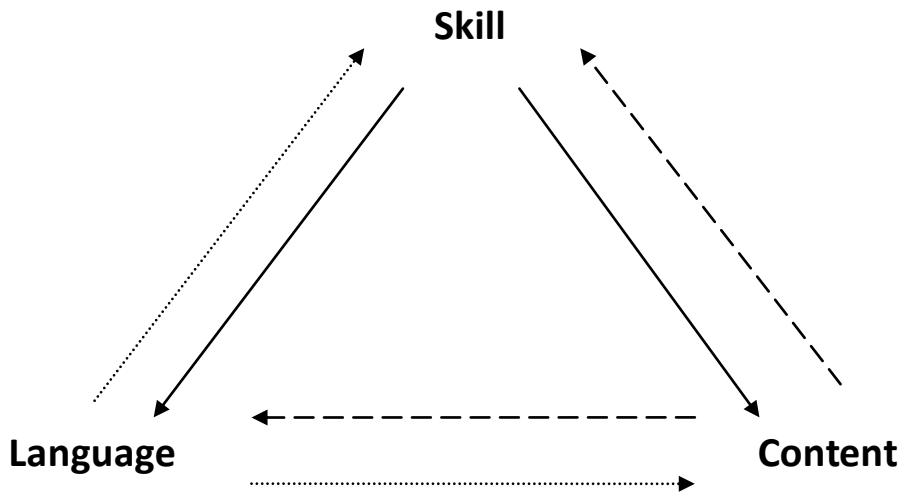


2.12.1 Language-based programme for academic purposes

Despite the instructional movement of the CBI curricular models depicted in *Figure 2.8*, a wide range of language-based EAP courses are still widely used at tertiary level across the globe in ESL/EFL contexts. These courses emphasise the 'academic core' across the disciplines, and aimed to maximise the opportunities for the students to practice academic literacy for their future university studies. It is assumed that some lexical components and discourse structures can be generalised as a unified register and then delivered to prepare the students for academic subject learning. Some content-based EFL courses (*see 2.9.1*) following the theme-based model, and some intensive English programmes (*see 2.9.3*) within the adjunct model are designed around the teaching of rhetoric to develop the students' language-based academic literacy. Therefore, it is assumed in these courses that, students'

performance on mastery of disciplinary knowledge and academic problem-solving skills may benefit from their better understanding of the vocabularies and sentence structures in the text, more effective note-taking strategies and higher fluency and accuracy of writing and oral presentation skills (*see the dotted arrow lines in Figure 2.9*). However, the design and implementation of these language-based literacy programmes appear to be flawed due to its overemphasis on generalised academic discourse rather than disciplinary distinctions and overreliance on pedagogical convenience rather than effectiveness.

Figure 2.9 Relationships of three academic literacy domains



Stoller (2002) argued that the EAP curriculum may meet general academic, linguistic and acculturation needs of those prospective university students with intermediate or high intermediate language proficiencies. However, these traditional EAP programmes were criticised for their reliance on the pedagogical convenience rather than pedagogical effectiveness (Bhatia, 2004). Teaching the generalised 'academic core' such as certain lexis, discourse structures and generic overlaps in academic writings across disciplines becomes the focus of these programmes. Bhatia (2004) pointed out that the generic and disciplinary conflicts were likely to impede the second language acquisition of those students with limited language proficiency and raised questions to the unified 'academic discourse' used in the EAP courses.

Besides, SCLT (Pally, 2000; Murphy & Stoller, 2003) also suggested utilising the single disciplinary materials to develop students' academic language and transferable skills. Therefore, a language literacy programme which centred on several business topics was proposed in this study. Some previous research on EFL and EAP courses at the postsecondary level for the disciplinary purpose provided some pedagogical recommendations on materials design and classroom instructions. Kol (2002) designed a special EFL course for mathematics and computer science students with teacher-generated materials adapted from professional manuals, textbooks and journals which were suitable for target first-year students and language teachers. She analysed the specific discourse style and textual structure of the selected materials and offered the classroom instructions on vocabularies and four traditional English skills.

Similarly, Iancu (2002) introduced the language skills-based ESL courses of the IEP and provided full descriptions of the listening and note-taking, reading, writing and speaking lessons. The two phases of English modules incorporated into a *Body Shop Case Study* (Esteban & Cañado: 2004) also focused on the development of students' language learning strategy and comprehensive language literacy needed to deal with the follow-up case study activities. Some linguistic components such as vocabulary, grammar, strategies for data processing and professional meeting skills were delivered to the students in these English courses. Therefore, as Short (2002) demonstrated in the LCT model, teachers used language instructions to help students develop semantic, syntactic and pragmatic knowledge of English, offer opportunities for practice of language skills and functions.

2.12.2 Discipline-based programme for business purpose

While the content used in the above language-based programmes is accused of the limited role it plays to help students improve language literacy, the numerous immersion programmes which adopt the sheltered model regard the understanding and mastery of disciplinary knowledge as a predominant objective. A wide range of

business-degree-granting programmes offered to international students in the English-speaking countries virtually fall into this category. In these programmes, language is viewed as a medium for learning content and content materials are used as instructions.

In these programmes, the students are required to learn the discipline in the foreign/second language and are held responsible for analysing the target language subconsciously and developing their academic language skills spontaneously. In addition, the mastery of disciplinary knowledge provides the premise for the development of disciplinary expertise. Consequently, it is assumed in this CBI teaching approach that the comprehensible and meaningful disciplinary knowledge input may facilitate students' academic language realisation and their expertise in this subject area (*see the dashed arrow lines in Figure 2.9*). However, this discipline-based instruction receives the criticism for its lack of systematic language development and difficulty in applying theory to problem solving, which may subsequently impair students' academic achievement in mainstream classes.

In these kinds of discipline-based programmes, teachers use disciplinary materials as the major classroom instructions and students are exposed to a large amount of disciplinary knowledge input from a variety of instructor-generated materials such as readings and lecture notes. Irrespective of their limited language proficiency, students in the sheltered programmes in the US were required to learn the discipline through the medium of foreign language. As a strong form of CBI programme, as argued by Wesche & Skehan (2002), any language support in the sheltered classroom should only aim to help students comprehend and master the disciplinary knowledge. The instructor of disciplinary content, as described by Short (2002), is held accountable for evaluating, selecting and determining appropriate disciplinary topics, as well as addressing study skills for receiving, memorising and processing the disciplinary concepts in order to meet the curricular standards and objectives. In terms of business studies, the disciplinary knowledge includes the systematic

business procedures, conventions, politeness systems, strategies and tactics provide students with in-depth insight into business culture and academic training opportunities to join the specialised business community. Iancu's (2002) study indicated that the disciplinary content course played an important role in motivating students to reach the requirement of undergraduate studies by offering professional discipline-based instructions.

2.12.3 Task-based programme for multiple purposes

The latest development of the CBI curricular models in the last decade prioritises the cognitive and affective learning process in line with the movement of SLA theories in ESL, and attempts to promote the improvement of students' multiple academic literacy in communicative and collaborative classroom activities. Both Stoller's (2002) 'hybrid EAP curriculum' (*see 2.9.2*) and Esteban and Cañado's (2004) *Body Shop Case Study* (*see 2.9.4*) in the business educational field presented a comprehensive picture of this content-based instructional methods including the balance of language and content, the selection of materials, the contextualisation of linguistic instruction, the sequencing of tasks and the consideration of programme evaluation.

The task-based instruction appears to be the most effective teaching-learning strategy because it is likely to fill the gap between language-based instruction and discipline-based instruction, promote the advancement of critical thinking, analytical, and problem-solving skills, and facilitate the development of diverse academic abilities in a holistic and collaborative manner. Therefore, under the task-based instruction, both students' acquisition of academic language skills and mastery of disciplinary knowledge are assumed to improve simultaneously, as they serve as the components of the classroom problem-solving tasks (*see the solid arrow lines in Figure 2.9*). It needs to be pointed out that the tasks used in this instructional method are different from those communicative language tasks in the language teaching classroom. Instead, the tasks here refer to those classroom activities which help the

students to interact with disciplinary knowledge and expertise using English, according to LCT model (Short, 2002). Nonetheless, this instructional strategy may be difficult in practice with the increasing complexity and uncertainty of teaching materials design, classroom management, and teachers' and students' responsibilities, as well as the possible language barrier.

In the CALLA model, Chamot and O'Malley (1996) emphasised the effectiveness of using instructional techniques to help students communicate their ideas interactively and collaboratively in the meaningful classroom tasks, resorting to academic language skills, disciplinary knowledge and appropriate learning strategies. Unlike TBLT for the purpose of promoting language production, Short (2002) further pointed out the tasks used in the LCT model aim to help students apply the disciplinary knowledge and study skills to academic problem-solving practice. In order to facilitate students' interactions with disciplinary materials and academic tasks in English, as Short (2002) further elaborated, teachers should clarify the instructions on tasks with regard to the dynamics of interactions, the ways of students' participation, and the procedures of implementation.

Zhang (2007) also recommended developing academic, business and language skills through accomplishing a series of classroom tasks such as simulation activities and case studies. These tasks, according to Stoller (2002), with increasingly complex but manageable challenges, provide students opportunities for solving problems, negotiating new knowledge and practice new skills, rather than simply exchanging ideas. In the *Body Shop Case Study*, Esteban and Cañado (2004) depicted the detailed procedures of the case method including multiple-steps instructions such as warm-up, information gathering and mock board meetings to guide the students in accomplishing the assigned tasks. All of these methodological considerations provide the suggestions for the design of task-based programme in this study.

2.13 Assessment of students' learning outcomes of multiple academic literacies

Although there are some occasionally available commercial tests in the market, Turner (1997) advocated the teacher-generated tests to examine students' learning outcomes, because one test designed for a particular topic is not suitable for another. Briton, Snow and Wesche (2003) also suggested using teacher-designed tests to keep track of students' language skills progress in CBI classrooms. Stryker & Leaver (1997) criticised the widely used proficiency-based language tests such as *ACTFL* and *ILR* for their limitations of excluding subject learning objectives. In China, many English tests in use with the emphasis on global language skills are also unlikely to measure students' subject knowledge and expertise properly. The importance of integrating both language and subject knowledge learning objectives into the assessment of students' academic performance across different CBI programmes were claimed by some researchers (Briton Snow and Wesche, 2003; Stryker & Leaver 1997; Corin, 1997; Met, 1999; Campbell & Duncan, 2008).

Klee & Tedick (1997) developed an 'assessment battery' to measure students' pre-post conventional four language skills and grammar in a CBI Spanish course, and all the language items centred on a single topic of sociology. In the sheltered psychology programme in the University of Ottawa (Briton, Snow & Wesche, 2003), weekly short-answer quizzes were used to test students' mastery of disciplinary knowledge, and the students were allowed to take the exams in their first language in order to reduce the risk of failure in separating subject knowledge evaluation from second language proficiency assessment. However, most students chose to complete the exams in the target language through which they learned the subject knowledge. Therefore, the disciplinary knowledge test items can be designed based on more general and less verbally demanding second language to truly capture students' understanding of disciplinary concepts.

In addition, when diverse academic abilities are growingly emphasised in the CBI classroom, the demand for examining students' disciplinary problem-solving expertise becomes necessary and important. To incorporate multiple-literacy learning

objectives into standard tests may increase the complexity of CBI programmes assessment, because the features of language literacy, disciplinary knowledge and academic problem-solving skills may mutually affect each other's construct. Some CBI researchers and practitioners raised 'standards-based performance assessment' in order to evaluate students' language competence in authentic tasks (Wiggins, 1998; Austin & Campbell, 2004; Campbell & Duncan, 2008), but these evaluative tools appeared to be problematic in practice due to lack of the rigorous judging criteria. Therefore, inclusion of some standard test items to measure students' individual diverse academic problem-solving skills in specific disciplinary areas can be considered.

2.14 Students' learning experiences

Chamot *et al* (1993) interviewed the students under the different levels of CALLA instruction to examine the effects of this teaching-learning strategy. Short (2002) made use of the interviews after analysing the data from classroom observations to study the interactions between the different instructions within the LCT model. Esteban and Cañado (2004) employed a wide range of informal qualitative methods to investigate the case study method used in a postgraduate course on business studies. Beckett and Slater (2005) undertook two sets of interviews prior and subsequent to the exchange programme to explore the students' learning experience using the Project Framework. In addition, Kol (2002) also conducted interviews with students and professors to analyse teaching-learning needs. These examples point to necessary inclusion of qualitative inquiries into the evaluation of CBI programmes, which may provide a panoramic description of the multifaceted teaching-learning situations.

Chapter III The Study

3.1 Aims and objectives

In the 24th of issue of *Annual Review of Applied Linguistics (ARAL)*, Stoller (2004: p.263) stated that future CBI articles were expected to focus on the empirical research that can 'inform the practices of teachers, curriculum and course designers, materials developers and individuals involved with assessment' in the content-based classrooms. The CBI curricular models discussed above demonstrate how different academic literacies can be structured and delivered in classrooms, but it is worth further investigating the systematic evaluation of students' academic learning outcomes of language, content and skills as well as the effectiveness of the programme. This research aimed to conduct a comparison study of effectiveness of different CBI methods delivered to ESL students of business studies. The objectives of this study included investigating the interactions between different aspects of academic literacies, identifying the strength and weakness of different CBI methods, exploring students' perceptions and learning experience of the CBI programme under different types of instructions, and providing some pedagogical implications for CBI programmes.

3.2 Research questions and hypotheses

Based on the above discussion of CBI methods, and their applications in teaching business subjects with English at post-secondary level, the **major research question** arose:

- *Is task-based instruction a more effective CBI method to develop multiple academic literacies for ESL students of business studies, in comparison with language-based instruction and discipline-based instruction?*

The **sub-research questions** were:

- *R1. Do students in the task-based group perform better in acquisition of academic language skills?*
- *R2. Do students in the task-based group perform better in mastery of business knowledge?*
- *R3. Do students in the task-based group perform better in the development of problem-solving skills?*
- *R4. Do students in the task-based group perform better in the overall academic outcomes?*
- *R5. What are relationships between the performances in three academic literacies in each group?*
- *R6. What are students' learning experiences at different phases in three groups?*

The **hypotheses** with regard to Research Question 1 to 4, concerning the effectiveness of different CBI methods were:

- ***H1***. *In terms of the language literacy (Lang.), the first hypothesis was that, the students in TB (task-based group) would perform better on Lang. tests relative to those in LB (language-based group) and DB (discipline-based group). In turn, it was hypothesised that the students in LB would perform better on Lang. tests relative to those in DB.*

- ***H2***. *In terms of Business Knowledge (Bus.), the second hypothesis was that the students in TB would perform better on Bus. tests relative to those in DB and LB. In turn, it was hypothesised that the students in DB would perform better on Bus. tests relative to those in LB.*

- ***H3***. *In terms of Problem-solving Skills (PS), the third hypothesis was that the students in TB would perform better on PS tests relative to those in LB and DB. In turn, it was hypothesised that there would be differences in mean PS scores as measured by PS tests between LB and DB.*

- ***H4.*** *In terms of Overall Academic Outcomes (Acad.), the fourth hypothesis was that the students in TB would perform better on the overall tests relative to those in LB and DB. In turn, it was hypothesised that there would be no differences in the mean Acad. scores as measured by the overall three tests between LB and DB.*

The **hypotheses** with regard to Research Question 5, concerning the theoretical assumptions of three CBI methods were:

- ***H5****. In LB, there would be a positive correlation between the students' performances on Lang. and Bus. tests and there would also be a positive correlation between the students' performances on Lang. and PS. tests.*

- ***H6.*** *In DB, there would also a positive correlation between the students' performances on Bus. and Lang. tests and there would also be a positive correlation between the students' performances on Bus. and PS. tests.*

- ***H7****. In TB, there would be a positive correlation between the students' performances on PS. and Lang. tests and there would also be a positive correlation between the students' performances on PS. and Bus. tests.*

Regarding Research Question 6 about students' learning experiences of this CBI programme, the study aimed to explore to what extent this was the case:

- ***H8.*** *In TB, the students would have greater satisfaction with the programme than those in LB and DB.*

3.3 Mixed-method designs

The tight criteria for the 'scientific' paradigm, as quantitative researchers claimed, lie within the resources of quantification which can produce the requisite generalisation and adequate tests for validity and reliability, but qualitative research due to a lack of the high standards of objectivity has at times been seen as opposed to sound scientific method (Walkers & Evers, 1999). Positivistic approach to research suggests that the evaluation of qualitative research should be judged by a set of scientific criteria such as reliability and representativeness used in quantitative research (Hammersley, 1991). However, the study of education due to inclusion of a variety of genuinely and distinctively human dimensions sometimes cannot be simply evidenced by statistical generalisations explored by intrusive and alien quantitative inquiry.

By contrast, according to Denzin and Lincoln (2003), qualitative research emphasises the socially constructed nature of reality, the close relationship of researcher and researched, and the situational constraints that form inquiry. Qualitative inquiry aims at providing answers in terms of formation and of social experience and how to make sense of them. Qualitative researchers are working with interpretations, explanations and inferences from such interventions as conversation they make and rely on the concept of trustworthiness to protect the validity and reliability (Cassell & Symon 2004; Neuman, 2006). Nevertheless, some educational researchers are quite suspicious whether a single qualitative inquiry in a particular case, will be able to offer a 'scientific' answer which can deliver the objectivity and generalisability rooted in the positivist approach to social science (Alexandra, 2006).

As a result, researchers may take advantage of exploring relationship between different methodologies to objectively evaluate the process and outcomes of the research. Sinclair (2000) points out that qualitative research in combination with simple statistical description can be in favour of an ethically defensible selection of outcome measures and rational evaluation of social programmes. He explains that qualitative research has some difficulties stemming from intangibility of its variables,

uncertainty of probability in which those variables are interrelated, but the only criteria that can judge the specific research methodology are internal. For example, it is less likely to make generalisations about the efficacy of a behaviour management strategy based on a one-off class teaching action research (Sikes, 2004). Similarly, it would be also impossible to generalise teachers' pedagogical values by an unsolicited and non-communicative quantitative research. There is a tendency that an increasing number of researchers attempt to integrate quantitative and qualitative methods in mixed research design and aim to legitimate the use of different research methods to answer different types of research questions (Creswell, 2003).

Mixed-method designs may incorporate the strength of both quantitative and qualitative inquiries (Creswell, 2005; Mertens, 2005; Punch, 2005) and serve for different research purposes. Quantitative data may be used to triangulate qualitative data or provide support for a particular qualitative finding, and qualitative data may help to explore the reason behind quantitative results. To answer the major research question, mixed-method designs were used in this comparative study of the effectiveness of three different CBI methods of teaching business English.

On one hand, those qualitative inquiries described in the literature such as classroom observation, analysis of course syllabus and plans, interviews with teachers and students, and stakeholder's reflections are widely used to deepen the understanding of what happens in CBI classrooms. However, these methods appear to lack accountability for delivering objectivity and generalisability rooted in the positivist inquiry (Alexandra, 2006) into students' academic achievement and the programme effectiveness. This is because these interpretivist inquiries over rely on the socially constructed nature of reality, the close relationship between researchers and the researched, and situational constraints (Denzin & Lincoln, 2003). Therefore, more formal studies involving statistical measures which necessitate the controlling variables to compare the effectiveness of different CBI curricular models are needed.

To evaluate the effectiveness of these three programmes based on students' paper-pencil tests may reveal some outcomes-based information from a positivist perspective, on one hand. On the other hand, due to the incompatibility between the traditional standards-based performance assessment and the learner-based teaching (Esteban and Cañado, 2004), the information stemming from the purely quantitative research may have a danger in presenting the phenomenon in an abrupt explanation (Silverman, 1997: p.24). For example, it is difficult to measure every single student's efforts made to contribute to accomplishment of the collaborative team task by means of the static test. All sorts of variables such as students' learning needs, students' and teachers' attitudes towards the programme, and the dynamic of teaching-learning contexts are worthy of study by many researchers applying the qualitative methods to evaluation of a variety of CBI curricular models. Therefore, the investigation also needs to include the qualitative inquiry to offer some interpretations and inferences of the systematic teaching-learning process in the CBI programme.

This research involved collecting quantitative data from eight hybrid post-tests as a priority and using qualitative data extracted from three sets of semi-structured interviews subsequently to further explain and probe quantitative results. The quantitative data was analysed with one-way MANOVA with follow-up separate ANOVAS as statistical measures to find out the differences in the effectiveness between CBI methods and a correlation test was also conducted to examine the assumptions of three CBI methods. The qualitative data was analysed in accordance with thematic content analysis approach, a method to qualitatively investigate people's meaning, understanding, conceptions and awareness of experiencing different CBI programmes.

3.3.1 Reasons for One-way MANOVA of mean scores of post-tests and correlation tests

This study aimed to examine the effects of three different CBI methods on students' learning outcomes of three academic literacies measured by post-tests. A mixed factorial ANOVA (mixed between within subjects analysis of variance) could have been used to carry out this analysis. In this study, there exists one categorical independent between-subjects variable with several levels (groups with different CBI methods), one categorical independent within-subjects variable with several levels (three different test types), and one continuous dependent variable (scores on different types of tests). Nevertheless, it may be also possible to implement this analysis using one-way MANOVA (multivariate analysis of variance). It can be assumed in this research that, there is only one independent categorical variable (IV: CBI methods) and three dependent variables (DVs: mean Lang. scores, mean Bus. scores and mean PS. scores). This study adopted the one-way MANOVA analysis due to some following considerations.

MANOVA is an extension of ANOVA for situations in which there is more than one DV (Field, 2009). According to the discussion in the previous chapter, it can be seen that three DVs in this study may be interrelated based on some conceptual reasons provided. MANOVA compares the different CBI groups, and reveals whether the mean differences between the groups on the combination of DVs may have occurred haphazardly. To do this, MANOVA performs an analysis of variance using a new linear combination of original DVs, looking at the interactions between them and the group significant differences. Besides, in comparison with a series of separate ANOVAs, MANOVA has its advantage over controlling and adjusting the increased risk of inflated Type 1 error. If three ANONAs were conducted separately – one to compare LB and DB, one to compare DB and TB, and one to compare LB and TB – and each of these ANOVAS uses a .05 level of significance for the test, the probability of falsely rejecting the null hypothesis (Type 1 error) is only 5%. As a result, the overall probability of making a Type 1 error across this group of ANOVAs

increases to 14.3% (1-.95x.95x.95= .143). Therefore, MANOVA protects the DV for which group differences genuinely exist (Bray & Maxwell, 1985: pp.40-41).

There are also some other reasons for prioritising MANOVA, according to Field (2009). If separate ANOVAs are conducted on mean Lang., mean Bus., mean PS., then three groups are only compared based on a single dimension and any information about correlation between these DVs is ignored. By contrast, MANOVA, including all the DVs in the same analysis, has the power to detect whether groups differ along a combination of dimensions. For instance, ANOVA unravels how the mean scores of a single type of tests (e.g. Lang.) distinguish groups with different CBI methods, whereas MANOVA incorporates information about three academic literacies outcomes and hence distinguishing three groups by looking at students overall performance on three types of tests. Therefore, MANOVA is more appropriate to compare the entire effects of different CBI methods based on students' academic learning outcomes.

Nevertheless, separate ANOVAs are normally conducted following a significant MANOVA, because they are thought to be protected by the initial MANOVA, according to Bock (1975). In other words, if the initial MANOVA is not significant, any subsequent tests are ignored. However, a significant MANOVA usually reflects a significant difference for just one of the DVs. Hence, subsequent univariate ANOVAs were considered to test the specific significant differences for the mean scores on three academic literacies between groups. A Bonferroni adjustment was used in this case to control for Type 1 error across multiple tests at this stage, which divides a normal alpha (typically .05) by 3 (the number of DVs) and generates a new probability value (.017) to find the statistical significance. Post hoc comparisons were carried out after that to examine the first hour hypotheses of this study.

The MANOVA with follow-up separate ANOVAs was designed to illustrate how the univariate ANOVAs should be treated prudently, and a significant MANOVA is

usually accompanied by at least one significant ANOAVA in real life. However, this does not mean that the relationship between DVs is trivial (Field, 2009: p.615). On the contrary, it is still important to investigate the correlations between students' mean scores of three types of tests. Therefore, a correlation test was also used to help the researcher fully and better understand the quantitative data. This analysis may discover whether Lang., Bus. and PS. are correlated in either positive or negative way in each group, which was likely to reflect the substantive theoretical and empirical assumptions of different CBI methods as hypothesised.

3.3.2 Thematic content analysis (TCA)

The static statistical data may not suffice to offer a full description of the effectiveness of this CBI programme delivered with different instructions, hence Thematic Content Analysis (TCA) was used to qualitatively investigate the students' learning experiences based on their reflections on the programmes in different phases. TCA is a descriptive presentation of qualitative data such as interview transcripts collected from research participants and other textual content that reflected experientially on the common themes of study (Anderson, 2007). TCA is claimed to be the most fundamental qualitative analytical procedure which may inform all interpretivist methods, based on researchers' objective epistemological stance.

The perceptions of this CBI programme may vary from one interviewee to another in different teaching-learning situations, but they are supposed to represent the full range of likely ways of experiencing this CBI programme among all the participating students. TCA aims to explore a range of meanings arising from a whole group of participants, rather than the meanings separately made by each individual within the group. Therefore, every interviewee's transcript was interpreted within the whole group of transcripts, by which some consensuses and contradictions emerged. In this way, the interviewees' learning experiences in different CBI groups may be compared and contrasted. Therefore, in order to explore the relations between students' from different groups in this CBI programme and their learning experiences, TCA offers an appropriate and legitimate method to analyse interview transcripts.

Atlas. Ti (a workbench software used for qualitative analysis of large bodies of textual, graphical, audio and video data) was used to analyse the qualitative interview data. Nine students' interview transcripts were turned into the assigned format with this software. The themes of description are not predetermined in advance. Instead, they emerge from the analysis of the interview transcripts in the light of continual categorisation. Before beginning a TCA, multiple copies of interview transcript were prepared in an *Atlas. Ti* format for the ensuing sorting and coding. TCA usually starts with a search for all descriptions relevant to the topic of inquiry, with a high degree of openness to possible meanings. In this phase, the researcher read through the nine interview transcripts several times and selected and highlighted those quotes found to be of interest for the research question. The researcher's attention then shifted from the individual interview transcripts to each distinct unit of meaning in the highlighted areas.

The meanings of these selected quotes were tested across the boundaries separating individuals and connected with the interviewees' learning contexts. These initial aspects of criteria become the focus of subsequent readings with open-mindedness for seeking their variations through all the interview transcripts. For instance, the researcher considered one of the problems (e.g. learning barriers) as discussed by all the interviewees and then read through all of the transcripts to find out the interesting ways of handling this problem. This process was repeated to help the researcher group and regroup the selected interviewees' quotes until the whole system of meanings was stabilised. These grouped quotes were categorised under a set of headings, and a 'family map' graphic which indicated the inter-quotes and inter-category relationships was sketched out for further interpretation of the data.

Most qualitative interview studies attempt to explore the more inter-subjective 'reality' (Kvale, 1996), but the issues of the credibility and trustworthiness of TCA are still expected to be addressed. Since the data inquiry in TCA is experienced by the researcher, this interpretive process is unlikely to be utterly objective (Bodwen,

1996; Marton & Booth, 1997). As a result, the criterion which can be drawn upon to judge the quality of TCA research focuses on how the research objectives appropriately reflected in the research methods used (Ashworth & Lucas, 2000).

Outcomes of TCA are represented as the themes of description which emerge from the students' interview transcripts. The researcher groups and distils a list of themes from participants' words to reveal their perceptions and reflections of experiences. In this study, the researcher's interpretations should remain to be a minimum during sorting and naming themes, and the meaning of these identified themes only needs to be illustrated in the Discussion Chapter. This 'pool of meanings' has two dimensions in which the phenomenon could be inspected: first, they belong to individual interviewees' personal reflection on his/her learning experiences; second, they are pertaining to the collective perceptions of this programme delivered with different methods. The interpretation of the phenomenon centred on a sparing set of distinctive meaningful and logically structured categories, reverberating between these two dimensions.

The researcher also sought the feedback on the research methods and final interpretation from his thesis supervisor, but not from the interviewees themselves. This is because an individual interviewee's understanding may not represent the collective experience of the holistic group and may change with changes in time and situation, according to Francis (1996). The researcher attempted to make analysis steps as clear as possible with details and examples. For instance, the researcher kept in mind the purposes of the interview questions and held a critical attitude towards the data when he analysed the research outcomes.

3.4 Methodology

An eight-week pre-post quasi-experimental design with some level of pre-test (assuming ability levels for the population in the pre-existing groups) and follow-up interviews were used to answer the research questions. The basic strategy for the studies (*see Figure 3.3*) was to:

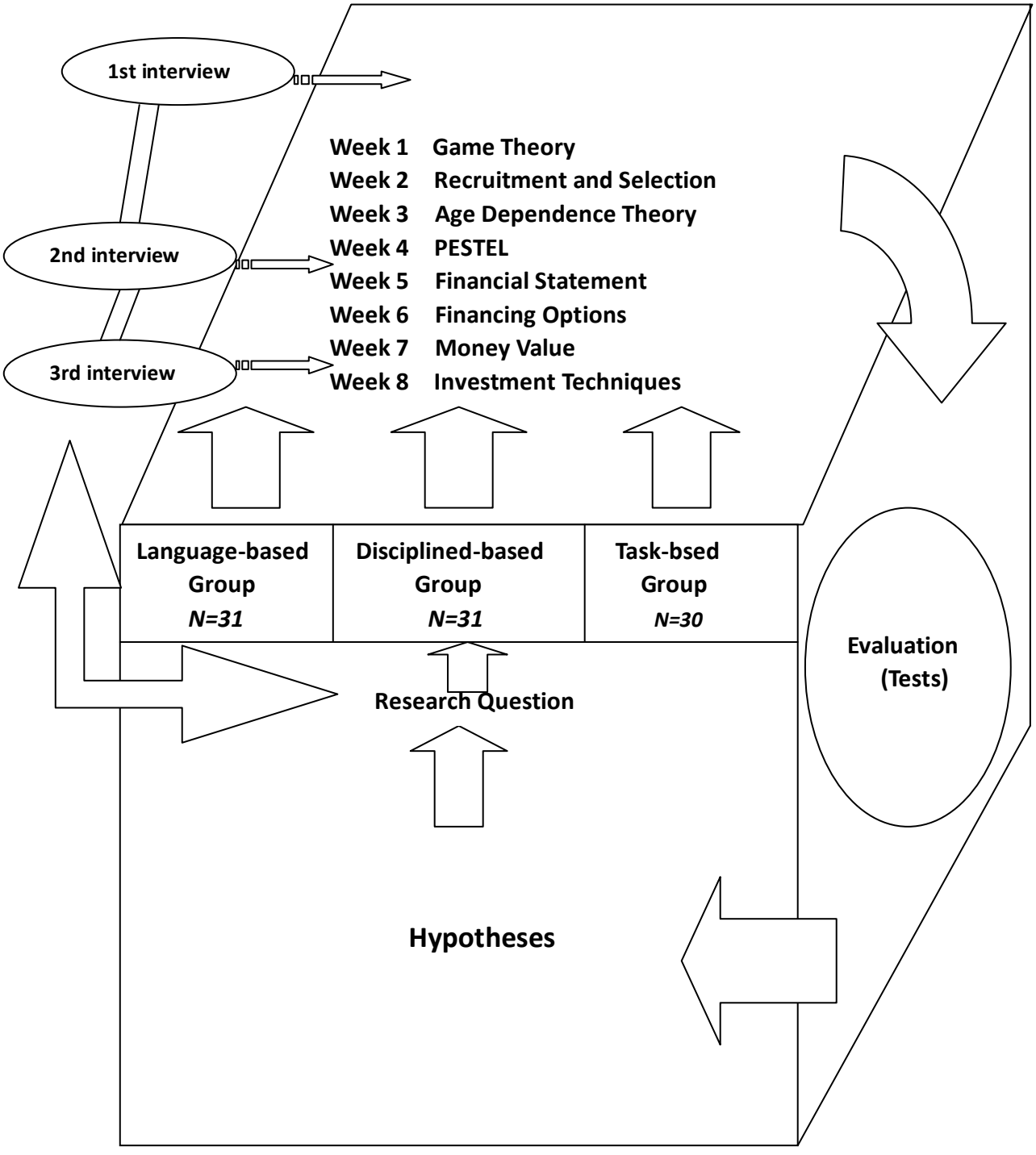
1) divide students into three groups based on the pre-existing class with minor adjustment after the pre-test

2) provide three different CBI methods - language instruction (LI), discipline instruction (DI) and task instruction (TI) - corresponding to three groups

3) administer eight hybrid post-tests after each teaching session to examine the differences of students academic achievements likely to be made from three CBI methods

4) hold three blocks of semi-structured interviews prior to, in the middle and towards the end of the programme to explore students' learning experiences under the different CBI methods.

Figure 3.1 The flowchart of the study



3.4.1Participants

In this study, the participants were selected from the third-year students at the School of Foreign Language (SOFL) at the Changshu Institute of Technology (CIT) in Jiangsu province, east China. These students learned English as a foreign language for business purposes at the university undergraduate level, and they represented a large population sitting on similar courses in many higher education institutions in China. They had learned English as a foreign language subject for at least eight years, and hence their English levels were intermediate to upper-intermediate. However, they had not had any experiences in learning business-related subjects in either English or Chinese before this programme commenced. They were assigned to three classes of 40-45 students evenly from top to bottom according to their English subject scores and total scores on the university entry examinations. The teacher involved in this programme was a current doctoral student holding a Bachelor degree in English studies and a Master degree in Business Studies, and he had three year's experience in teaching Business English at the post-secondary level.

3.4.2 Induction and pre-test

131 potential participants were invited to join an induction session which provided a clear picture of the proposed programme in terms of its purposes, procedures, risks, and potential benefits. Two copies of consent forms (*see Appendix I*) were distributed to each attendee, and 105 respondents willing to participate in the programme were requested to return one of the copies with their signatures. A follow-up pre-test was then given to these three groups of participants to examine their beginning levels of academic language proficiencies (Lang.), business knowledge (Bus.), and academic problem-solving skills (PS). The format of this pre-test (*see Appendix II*) was consistent with the eight successive post-tests. The pre-test results showed that the participants reached a certain level of listening, reading, writing and speaking proficiencies in English, but had a beginner level of Bus. and PS. The results also revealed that these three groups were not different in terms of their Lang., Bus., and PS and normally distributed on the pre-test scores before the beginning of the project, which confirmed that the groups must be equivalent before the administration of the

treatment (Drew *et al*, 2008). In order to facilitate the administration of the programme, these 105 confirmed participants were then assigned to three groups in accordance with the pre-assigned classes with some minor adjustments.

3.4.3 Teaching materials design

The researcher selected eight business topics and designed the teaching materials for three different CBI methods – LI, DI and TI. For the same topic, the contents and the difficulties of the materials remained equivalent for three instructions. The materials were extracted or adapted from a chapter of published business textbooks, a paper of academic journals or an article of business newspapers. The eight business topics included: Game Theory (Economics), Recruitment and Selection (Human Resource), Age Dependence Theory (Management), PESTEL (Strategy), Financial Statement (Accounting), Financing Options (Investment), Money Value (Finance), and Investment techniques (Financial Management). The participants' previous learning experiences, cultural background and positive motivations, the appropriateness and enjoyment of the teaching materials and activities, the teacher's presentation skills, support for learning, and classroom time management were taken into account during the design.

3.4.4 Pilot Study

Five participants were selected randomly from each group to attend a two-hour pilot teaching session. A few excerpts from teaching materials on the same business content knowledge with three different CBI methods were delivered to these three small groups of students followed by a same informal test. This pilot study provided the researcher with some information about the feasibility of the proposed programme in terms of the time and effort required on part of the participants in the classroom, the clearness of these three CBI methods, and the relevance between participants' responses to the test questions and the different instructions they received. Some adjustment and amendment were made on the length of teaching materials and the test questions after this pilot study.

3.4.5 Three CBI teaching methods

The programme lasted for eight weeks during March and April 2009. Each group of participants had four contact hours every week with the teacher in the multimedia classrooms at the SOFL of CIT. The programme was delivered to these three groups with three different CBI methods. To illustrate these three different teaching instructional methods, 'Prisoner's Dilemma', a topic in the 'Game Theory' session, is taken as an example.

3.4.5.1 Language-based Group (LB)

In LB, the programme focused on development of students' academic language skills for business studies. It was assumed in LB that second language barrier hindered the learner's comprehension and mastery of Bus. and of PS. Hence, as long as the students master the patterns of specialist lexis and certain rhetorical functions, they were able to learn Bus. and acquire PS effectively as well. In this group, language instruction was responsible for Lang. and Bus. learning. The practice of four Lang. - listening, reading, writing and speaking – was emphasised through LI on a series of business topics. The business topical texts were used as the sources for LI. The LI focused on learners' academic communicative skills and stimulating students to overcome problems in language comprehension and production, rather than on the discrete segments of language elements such as morphemes, collocations, and syntax. A variety of language-based classroom activities (e.g. timed writing and reading) were also used to help the students practice academic language skills.

Take the topic of ‘Prisoner’s Dilemma’ as an example. A few paragraphs selected from two relevant journal articles (*see Appendix III*) were adapted into the reading materials as input exposed to the participants in the classroom. During the intervention:

- the teacher stimulated the students to request and check the meaning of the new vocabularies (e.g. payoff, maximax, maximin), terminologies (e.g. Nash Equilibrium), and phrases (e.g. tit for tat) in pairs, followed by the corrective feedback on incorrectness
- the teacher asked the students to skim and scan the key paragraphs using the reading tactics for gist, and to raise the language problems impeding the understanding of the materials
- the teacher facilitated the output by interaction with the students (e.g. paraphrasing the difficult sentences, inferring meaning of new vocabulary, finding out the topic sentences and supporting ideas of the paragraph), as well as encouraging learner’s reactions in both oral forms (e.g. retelling this story to your desk-mate) and written forms (e.g. summarising the ‘Tit for Tat’ strategies in a timed writing task)
- the teacher stimulated the learners to correct the language mistakes that occurred in those oral and written works with the peer feedback

The teacher in LB played the single role of language instructor. His responsibility was to deliver the language learning strategies by telling the students how to take notes in a lecture, how to apply word analysis skills to reading activities, how to write an essay question in a logical way, and how to make an oral presentation in the classroom. Taking into account students’ limited Bus., the teacher also provided some supports (e.g. analogies and genre switching) to facilitate students’ understanding of business materials, however, students were held responsible for learning Bus. and PS. under the LI.

3.4.5.2 Discipline-based Group (DB)

In DB, the primary purpose the programme was to help the students comprehend and master Bus.. It was assumed in DB that learners were able to develop their Lang. spontaneously when they were learning Bus. under the DI. In this group, the students were immersed in a non-language business programme for English native students. They were exposed to the input from a wide range of disciplinary content resources including teacher-generated visuals, worksheets, and supplementary readings, according to Stoller (2002). The materials presented to the students focused on the procedural and factual business knowledge, as well as conventions and cultures of the specific subject. The texts from multiple resources and the activities involved in this group simply aimed to help students better understand the Bus, but not for the purpose of language practice. Take the topic of 'Prisoner's Dilemma' as an example, in the classroom:

- two PPT slides were presented to the students (*see Figure 3.2*)
- the teacher narrated the story about the above quadrant (moves and the countermoves), illustrated the meaning of the numbers (jail term caused by their options), and pointed out its economic implication (e.g. two firms competing to sell the same product), beginning the DI at students' current level of understanding and then moving to higher levels (Echevarria *et al*, 2008)
- two supplementary articles on this topic were distributed to the students, and the teacher give the DIs to place the emphasis on content knowledge and the arguments of the texts
- the teacher organised a class discussion to consolidate the students' understanding of the 'Game Theory'

Figure 3.2 PPT of 'Prisoner's Dilemma' (Babu, 1998) in the DB

		PRISONER 1	
		CONFESS	DON'T CONFESS
PRISONER 2	CONFESS	-10, -10	-0.5, -15
	DON'T CONFESS	-15, -0.5	-1, -1

		What you do	
		Cooperate	Defect
What I do	Cooperate	Fairly good **REWARD** (for mutual cooperation) 3 points	Very bad **SUCKERS'S PAYOFF** 0 points
	Defect	Very Good **TEMPTATION** (to defect) 5 points	Fairly bad **PUNISHMENT** (for mutual defection) 1 point

In this group, the teacher played a part of discipline instructor. Taking students' English competence for studying Bus. into consideration, the teacher explained the business terminologies and jargon, resorted to slower speech and clear enunciation and answered students' questions to facilitate their comprehension. However, any language support was limited as the assistance for the learners to follow the DI. It was the students' responsibility to analyse L2 subconsciously and overcome language barriers to understand Bus. , based on exposure to the disciplinary content input.

3.4.5.3 Task-based group (TB)

The TI captured the strengths of those models from a triarchical perspective with their multiple goals to develop students' Lang. and Bus. and PS. Unlike LB or DB, it was assumed in TB that, Lang. and Bus. were incorporated into a holistic and collaborative classroom task to activate learners' acquisition process and promote PS. in business contexts. TB was student-initiated and focused on their abilities to restructure knowledge (Dekeyser, 1998) by interacting communicatively with meaningful tasks. These tasks could be either those have specific pedagogical purposes to the classroom, or those learners are likely to tackle in the real business world. Students were expected to develop Lang. and Bus. simultaneously while accomplishing a sequence of cognitively progressive pedagogical tasks or case studies. Lang. outcomes could be the improvement of one or some academic language skills, and Bus. outcomes could be either closed or open. PS referred to a wide range of academic abilities such as sorting, ordering, selecting and filtering information, applying theory to practice, figuring out numerate questions, interpreting numbers, critiquing different opinions, reflecting on experience, and diagramming. Students were required to demonstrate different types of PS according to the characteristics of varied classroom tasks. Take 'Prisoner's Dilemma' as an example:

- a story of 'On Robbing a Bank' excerpted from a journal article was presented to the students and a dilemma was raised
- a sequence of scaffolding instructions was delivered to the students including some prompts for the activities (e.g. play this game in pairs and put your pay-offs in a quadrant), and some leading questions (e.g. what kind of strategy do you apply in this game and what problems does it have?)
- the teacher explained and confirmed understandings of the task, and coached the students with some glossaries, phrases, terminologies and sentence patterns likely to be used in the task
- the teacher received feedback from the students, made comments on students' findings and task performances, and then exchanged opinions with the students on this topic

In this group, the teachers' role was that of "language consultants, mediators in the groups' discussion, moderators, and instigators of the debate, always mindful of the students' needs" (Esteban and Cañado, 2004: p.153). To facilitate students' successful completion of the task, the teacher provided some individual supports on business and language problems to the small groups or pairs, but these interventions were constrained to help students deal with the designated tasks. The teacher also encouraged students' self-autonomy and self-motivation. The students were obliged to develop their Lang. and Bus. in the process of their interaction with group members, partners or debate rivals. Some modifications were made regarding the sequence of the TIs according to the specific teaching-learning situations on the spot.

3.4.6 Omnibus tests

A battery of 8 successive omnibus tests were designed to evaluate students' academic progress in this CBI programme. The contents of the questions in the test centred around the relevant knowledge the students accessed during the teaching intervention. Each test consisted of three sections to assess students' achievement on three domains of academic literacies – Lang., Bus., and PS – respectively.

3.4.6.1 Language literacy (Lang.) items

Following the guidelines of ESL 33C skills objectives (Weigle & Jensen, 1997: p. 209) for a final examination in an ESL programme at the UCLA and ACTFL oral proficiency interview *(see Appendix IV*), take the test on 'Game Theory' as an example (*see Appendix V*), the first section was to test students' Lang.:

- 5 multiple-choice items based on a short paragraph from the textbook were designed to capture students' English listening skills in terms of comprehension of academic lectures and formal topical conversation and recognising speaker's register, opinions and bias
- multiple-choice or true/false questions based on a journal article were designed to test students' English reading skills in regard to skimming texts to find main ideas, scanning texts to locate specific information, and inferring to recognise implicit information

- an essay question based on readings and lectures was designed to test students' English writing skills in summarising essays, comparison/contrast essays, cause/effect essays, argumentation essays (for example, the students were required to write a page to make an example of game theory in their daily lives and justify the solutions to resolve it)
- a speech item – retelling the story about the location game 'setting the shop along the beach' and elaborate what you learned from it – was designed to test students' English speaking skills. The spoken items were conducted on the individual basis after the written items. Each student was given maximum 5 minutes to respond to the prompt and their responses were recorded for the following scoring

3.4.6.2 Business knowledge (Bus.) items

The second section was to test students' mastery of Bus.. 5 multiple choice or short answer questions were designed to assess students' abilities to identify business concepts/terms and factual/procedural knowledge. For example, in the 'Game Theory' test (*see Appendix V*),

- Item 1 was about the different policies (maximin or maximax) adopted in the dominant strategy games
- Item 2 was about the different positions (better or worse) caused by different strategies (defection or cooperation)
- Item 3 was about the agreement or disagreement on the statement of the 'tit for tat' strategy
- Item 4 was about transformation from strength to weakness in 'Rational Pig' dominant strategy game
- Item 5 was about the number of 'Nash equilibriums' in the 'Battle of Sexes Game'. All Bus. involved in this section was covered in the materials used during the teaching sessions

3.4.6.3 Problem –solving skills (PS) items

The third section was to evaluate students' PS to deal with academic business questions. The types of items in this section ranged from grid-filling, short answer questions, multiple steps arithmetic calculations to essay questions. The items in this section normally started with setting up a business context or raising a business problem relevant to the topic in the teaching sessions and then were broken down into several sub-questions. Students were required to apply a variety of academic PS in relevant business cases to analyse, critique or synthesise the information provided. For instance, in the test on 'Game Theory' (*see Appendix V*), two companies' price strategies and the effects on their profits were shown in the quadrant, followed up with two short answer questions about matching the price choices and different strategies. Then students were required to identify the characteristics of the 'dominant strategy' within this paradigm. Finally an open-ended question was to test students' critical understandings of the 'tit for tat' in analysis of the companies' options for collusion or price war.

The above three sections were set out on one test paper. The students were required to finish the test within 90 minutes apart from the spoken test. LB, DB and TB received the same test immediately after weekly teaching sessions, without being given any extra revision time. Some arithmetic formats and tables were provided, and calculators were allowed in the certain tests.

3.4.7 Marking

The researcher marked all the test papers from these three groups, unaware of which group the papers came from. During marking short-answer items in PS sections, a clear key with both appropriate and inappropriate responses were specified to make the criteria for correctness explicit. Concerning essay questions, a detailed marking rubric of ESL 33C Composition (*see Appendix IV*) in regard to content, rhetoric and language was applied to the evaluation in this study. The spoken items were marked on the basis of the ACTFL scale in terms of 'functions, context, content, and

accuracy' (*see Appendix IV*). In order to increase marking reliability, all the items which required subjective judgment were marked by the researcher once again the next week without consulting the first marking.

3.4. 8 Semi-structured interviews

Three blocks of semi-structured interviews were conducted prior to, in the middle (the fourth week), and towards the end (the seventh week) of the programme. The first block of interviews aimed to probe students' previous academic experiences with CBI programmes and expectations for their achievement on the imminent programme. The purposes of the second and the third blocks of interviews were to elicit students' feedback on different CBI methods and perceptions of their performance at different stages. Three students were randomly selected from three different groups to join in the individual interviews with the researcher. Although the researcher had outlined a series of questions to find out useful and interesting information during the interviews, these questions were asked by negotiation, discussion and expansion. All these interviews were audio taped under students' permission and transcribed verbatim subsequently, making the transcripts the focus of analysis.

The interviews were held in a quiet conference room at SCOL, which ensured the quality of audio recording. Each individual interview lasted no longer than 30 minutes. The questions were asked and answered in English to favour later transcriptions. The language used in the interview was general English and any specialist terms, slangs and idioms were avoided. During the interview, the researcher repeated or paraphrased the questions, if the respondent did not understand or misunderstood them. The Interviewees were treated with utmost consideration and respect (Drew *et al*, 2008; Creswell, 2005; Mertens, 2005) by the researcher aiming to establish a relaxed atmosphere. In addition, the researcher took respondent's personal situation into account, and at times sympathised with some respondents' frustration that resulted from their poor performances on the tests.

On account of the researcher's dual identities as a teacher and also an interviewer, the purposes of the interview were communicated to the interviewees beforehand in order to avoid the potential danger of power differential. It could be noted that most of the respondents kept neutral to the questions and critical to the programmes they involved in. Besides, these interviews were less likely to track the same student's responses longitudinally throughout this programme, because there was a concern about the student's exit on halfway. However, the 9 snapshots of 9 students' responses still demonstrate a multifaceted picture of this CBI programme under three different teaching instructions.

3.4.9 Reliability and Validity of the data collection

To ensure that the study was internally valid, the researcher attempted to control all the influences on the three groups other than the three different CBI methods. The research questions involved comparison of the effectiveness of different CBI methods as measured by students' scores on a series of achievement tests. The systematic differences between these three groups should be a direct result of the only independent variable – CBI methods. Any other systematic differences between the groups needed to be circumvented or avoided. In addition to internal validity, reliability in this study referred to consistency of measurement from defining objectives and designing materials through teaching sessions to tests as well as interviews. Assessment and interview procedures should be as reliable as possible so that the decisions based on the test scores and interview transcripts are a true reflection of students' academic achievement and their perceptions of the programme. Therefore, it is important to be aware of threats to the reliability and internal validity at all stages during the research.

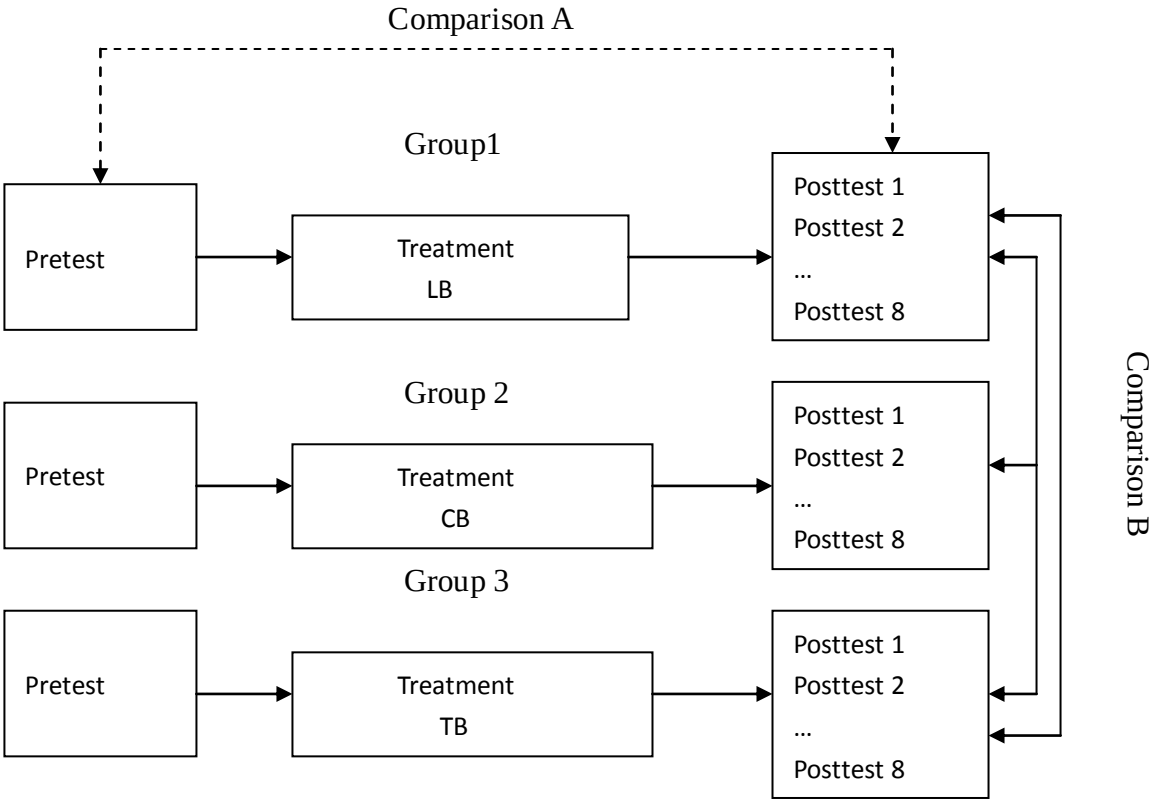
Firstly, the researcher's role as a teaching material designer, a teaching practitioner, a test writer, an examiner, and an interviewer in this study might lead to researcher bias, being predisposed to a particular outcome and looking for evidence in favour of the hypotheses. Hence he tried to keep as neutral as possible when designing materials,

teaching different groups, marking their test papers as well as interviewing the students. For example, the researcher followed the materials strictly and tried to deliver the same amount of information with equivalent degree of difficulties to the different groups. Students' personal and group identities remained unseen during marking the test papers. Besides, the researcher selected the interviewees irrespective of their performances on the tests to avoid receiving the words with prejudice. However, the interviewee's frustration caused by his/her underperformance on the tests may also lead to the bias against a certain CBI method.

Secondly, some unexpected events which occurred at approximately the same time during the intervention were likely to threaten the internal validity. One group's motivation and self-efficacy was likely to be higher than another group. One group was likely to exert lower levels of efforts during the intervention because of physical fatigue caused by the intensive school schedules. One group was likely to take the tests less seriously because it was a non-credit course. One group was likely to take greater interests in the programme and had 'special' feelings owing to Hawthorne effect. Besides, a certain number of participants were lost for unknown reasons. Some students were absent for a few weeks because of illnesses. These students' tests records needed to be deleted. All of these hidden variables, the independent variable – CBI methods, or the combined effect of both could have led to the different mean test scores between the groups. However, some tactics were used to minimise these unprecedented influences. For example, students were repeatedly informed that they only would devote 4 contact hours every week to this programme in the classroom, and no extra work was required. The timetable was negotiated and rescheduled at times if the group had an epidemic aversion to extra work on a busy day. The benefits of this programme were reiterated to renew students' enthusiasms to increase attendance. As a result, 31 students in LB, 31 in DB and 30 in TB attended all the teaching sessions and completed all 8 tests.

Thirdly, the repeated-tests design (*see Figure 2.9*) in this study may be more vulnerable to test practice. The students' familiarity with the test styles was also likely to influence their test results. Moreover, this design appeared to be plagued by a lack of evidence that the mean test scores would not be different from one group to another, had the same CBI method been delivered. It can be seen from *Figure 2.9* that, the evaluation of the effectiveness of three CBI methods was supposed to be accomplished by two types of different comparisons: Comparison A looking for pre-post differences within the groups and Comparison B looking for differences between the groups on post-tests. However, the purpose of the pre-test in this study was to confirm that there had been no discrimination in composition of the pre-existing groups. To assess Lang. improvement during 8 weeks in this programme was undesirable, thus the post-tests were used to gauge the students' gain on Bus. and PS as well as performance on Lang. under different CBI methods. In this sense, this study focused on the comparisons of students' average academic performance on post-tests between the groups (*Comparison B in Figure 3.3*).

Figure 3.3 The design of learning outcomes comparisons



Finally, there were also some concerns about the construct validity of the test. The process of construct normally involved considering content coverage and criterion relatedness (Weigle & Jensen, 1997). Content coverage referred to match the contents and aims of the test items (Lang. Bus. and PS). However, Bus. items required students to read and understand the instruction and content of questions in English. And Lang. items were implicitly to measure students' Bus.. Moreover, the items which aimed to measure PS were unlikely to be operationalised without integration of Lang. and Bus. Therefore, there appeared to be a lack of a clear-cut borderline between test items of these three domains of academic literacies. Nonetheless, some attentions and adjustments to these influences were given during designing the tests. For example, some less verbally demanding test items such as multiple choices and short answer questions were used to measure students' mastery of Bus..

3.4.10 Ethical considerations

This was a piece of doctoral research work sanctioned by School of Education Ethics Committee at Durham University. This study was approved and supported by the School of Foreign Languages at the Changshu Institute of Technology. Before the programme started, each participatory student was given a consent form in which the purposes of the study, procedures, benefits, right to withdraw and issues related to confidentiality and anonymity of data were specified. The confirmed participants' commitment to participate would take effect after they signed the form. All the data collected from students' tests and interviews were kept anonymous and confidential, and any reference to their personal cases in the thesis would be presented in code. The results of the students' tests and the interviews recording would be used for the research purpose only, and they would be destroyed as soon as the research was concluded. The students had the right to request their individual tests results. This programme was non-credit and supplementary to compulsory modules. In order to reduce the students' stress to the minimum and control other adverse effects, they were informed that the test results would definitely have no impact on their term

academic records. All the participants and the SOFL in CIL would be informed of the findings of the research.

Following the data collection, a one-way MANOVA with a follow-up correlation analysis of student's academic outcomes of post-tests, and TCA of interview transcripts were conducted. The findings were presented in Chapter IV. To answer *R1, R2, R3, R4,* the results of testing *H1, H2, H3, H4* were presented in *4.1.2*. To answer *R5*, the results of testing *H5, H6, H7* were presented in *4.1.3*. To answer *R6*, a set of categories of descriptions with some quotes and analyses were presented in *4.2*.

Chapter IV Findings and Interpretations

4.1 One-way MANOVA and Correlation analysis of students' academic performance on post-tests

In this study，the sub research question 1, 2, 3, 4, 5 were assessed in the analysis using one-way Multivariate Analysis of Variance (One-way MANOVA) with follow-up univariate ANOVAs and subsequent post hoc multiple comparisons. These analyses were conducted by the Statistical Package for Social Sciences (SPSS). The purpose of the analyses was to examine whether, in terms of academic outcomes, students in the task-based group (TB) make a better performance on the post-tests, relative to the language-based group (LB) and the discipline-based group (DB), as measured by eight successive omnibus tests. The independent variable in this study was the three different CBI methods – the language instruction (LI), the discipline instruction (CI), and the task instruction (TI). The three dependent variables were the mean language literacy (Lang.), business knowledge (Bus.), problem-solving skills (PS) scores. These means were calculated on the basis of the recorded scores from those students who completed all the eight tests. Students' mean overall academic performance scores (Acad.) were calculated base on the above three mean scores.

Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity, with no serious violations of MANOVA noted:

- There was a total of 9 cells (3 levels of IV: LI/DI/TI, and 3 DVs for each: Lang., Bus., PS). The number of cases in each cell (*see Descriptive statistics box in Appendix VI*) is more than three. According to Tabachnick & Fidell (2007, p.251), a sample size of at least 20 in each cell should ensure 'robustness'.

- The Kolmogorov-Smirnov statistic (*see Test of Normality in Appendix VI*) indicated normal distribution of most scores (except the Mean PS in LB, p = .034 and TB p =.036).

- The Mahal. Distance statistic (*see Residuals Statistics in Appendix VI*) indicated that the maximum value (13.8) is smaller than the critical value (16.27) obtained from a chi-square table and there were no salient 'multivariate outliers'.

- The matrix of scatterplots in *Appendix VI* did not show any obvious evidence of non-linearity. Therefore the assumption of linearity was satisfied.

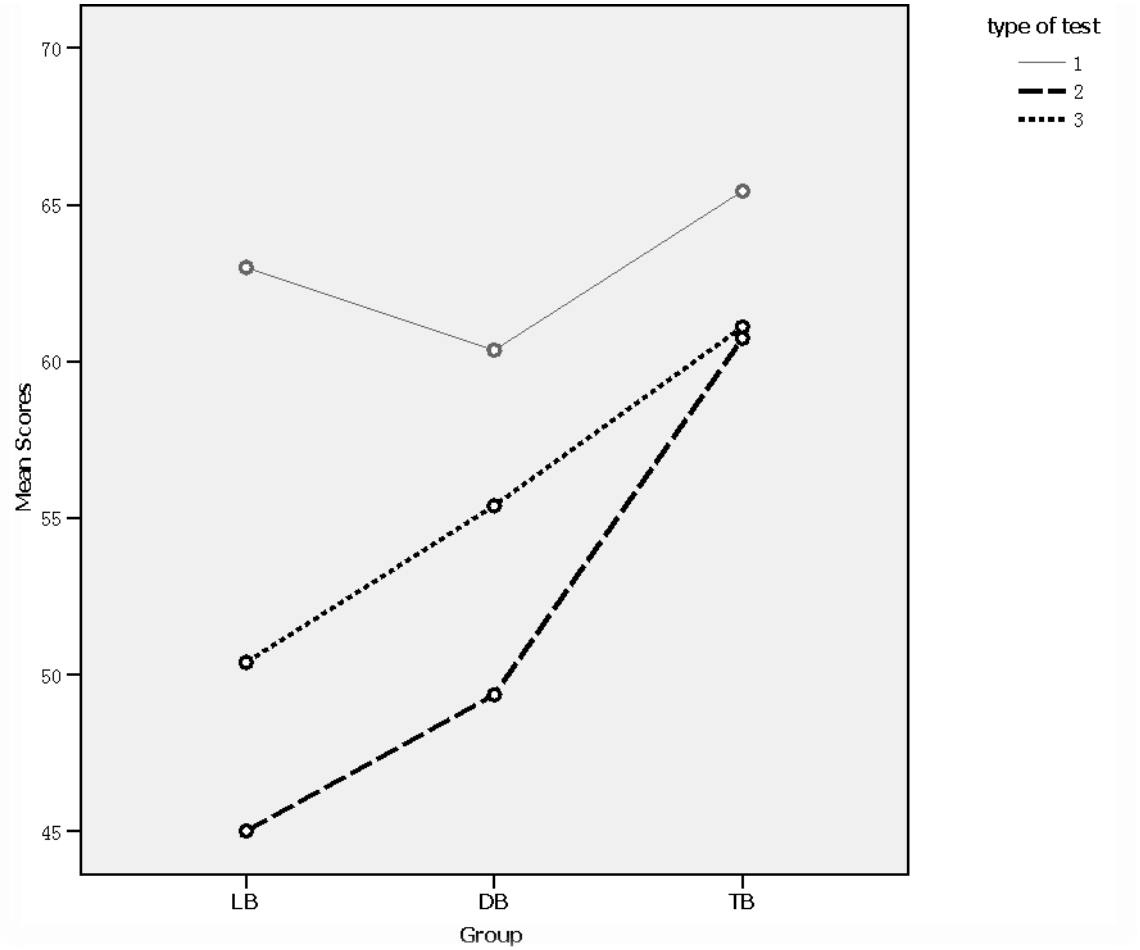
- The *Box's Test of Equality of Covariance Matrices* (*see Appendix VI*) suggested that the data did not violate the assumption of homogeneity (p = .969 > .001).

- Strong correlations up to .8 or .9 (Pallant, 2007: p282) were also not found among the different types of mean scores in three groups (*see Table 4.2*).

In the multivariate test, Pilla's trace was chosen to examine whether there would be a statistically significant difference among the groups on a linear combination of the DVs, because it is thought to be robust and accurate with unequal group sizes (Tabachnick & Fidell, 2007). A set of univariate ANOVAs were conducted based on the significant MANOVA, and Bonferroni correction was used to find which ANOVA was significantly different between groups. After that, Fisher's LSD was employed to make post-hoc comparisons on the means which had significant unvariate, because LSD was found to hold familywise error at or below the nominal rate and to have robust statistical power to make pairwise comparisons among three groups (Levin, Serlin & Seaman, 1994). Finally, Pearson's correlation tests were used to examine the relationships between mean scores within each group.

4.1.1 Results of One-way MANOVA

Figure4. 1 Mean Scores for Lang., Bus. and PS



1= language literacy, 2 = business knowledge, 3= problems-solving skills. LB = language-based group, DB = discipline-based group, TB = task-based group.

The one-way MANOVA, using Pilla's trace, revealed that there was a significant effect of CBI methods on students' academic outcomes, V = 0.25, F (8, 174) = 3.12, p = .003 < .05. The separate univariate ANOVAs on the academic outcome variables, using a Bonferroni correction (adjusted alpha level of .017), further confirmed that there was a significant CBI methods treatment effects on Bus., F (2, 89) = 6.47, p = .002 < .017 (partial eta square = .13), on PS, F (2, 89) = 5.36, p = .006 < .017 (partial eta square = .11), and on Acad., F (2, 89) = 7.62, p = .006 < .017 (partial eta square = .15) . However, there was not a significant CBI methods treatment effects on Lang., F (2, 89) = 3.18, p = .046 > .017(partial eta square = .07).

4.1.2 Results of Post-hoc multiple comparisons

Table 4.1 Post-hoc Multiple Comparisons

	LB	DB	TB	Total
Mean Lang. Scores	63.00_a (7.10)	60.35_a (8.95)	65.43_a (7.42)	62.90 (8.06)
Mean Bus. Scores	45.00_a (18.07)	49.35_a (16.74)	60.73_b (17.97)	51.60 (18.63)
Mean PS Scores	50.39_a (13.36)	55.39_{ab} (12.74)	61.10_b (12.18)	55.57 (13.37)
Total(Acad.)	52.61_a (10.47)	54.94_a (10.24)	62.40_b (9.89)	56.59 (10.92)

LB = language-based group, DB = discipline-based group, TB = task-based group, Lang. = language literacy, Bus. = business knowledge, PS = problems-solving skills, Acad. = overall academic performance; Means with common subscripts are not significantly different from each other *($p < .05$)*.

For each hypothesis the results were tabulated displaying the mean scores out of 100. Standard deviations are given in parentheses. Some subscripts are used with mean scores to denote the significance. Means sharing the same subscript letter are not significantly different. For instance, suppose that three mean scores with subscripts *a*, *ab*, and b were from DB, LB and TB respectively, because LB share the subscript *a* with DB, LB was not significantly different from DB. Likewise, because LB shares the common subscript b with TB, LB was not significantly different from TB. However, DB was significantly different from TB because they do not share a common letter in their subscripts. The significance of differences of the means between the groups was reported for each hypothesis. With regard to the number of students in each group, LB had 31, DB had 31, and TB had 30. This applies for all hypotheses. The above result presented with the follow-up pairwise comparisons, in terms of testing the first four hypotheses were reported as follows.

4.1.2.1 Language literacy

In terms of Lang., the first hypothesis was that the students in TB would perform better on Lang. tests relative to those in LB and DB. In turn, it was hypothesised that the students in LB would perform better on Lang. tests relative to those in DB. To examine this hypothesis, it was necessary to compare the mean Lang. scores between LB, DB and TB.

Table 4.1 shows that the mean Lang. scores, were moderately high ranging from TB (M = 65.43, SD = 7.42), LB (M = 63.00, SD = 7.10) to DB (M = 60.35, SD = 8.95). The univariate ANOVA for Lang. revealed that, contrary to the first hypothesis, the differences in the mean Lang. scores between the groups were not significant (the mean Lang. score for TB did not differ from LB or DB, and the mean Lang. score for LB did not differ significantly from DB either).

4.1.2.2 Business Knowledge

In terms of Bus., the second hypothesis was that the students in TB would perform better on Bus. tests relative to those in DB and LB. In turn, it was hypothesised that the students in DB would perform better on Bus. tests relative to those in LB. To examine this hypothesis, it was necessary to compare the mean Bus. scores between LB, DB and TB.

Table 4.1 shows that the mean Bus. scores were moderately high ranging from TB (M = 60.73, SD = 17.97), DB (M = 49.35, SD = 16.74), to LB(M = 45.00, SD = 18.07). Post-hoc comparisons revealed that, the difference in mean Bus. scores between TB and LB was significant (p = .001), but, contrary to the hypothesis, the mean Bus. score for TB did not differ significantly from both DB (p = .013), and the mean Bus. score for LB did not differ significantly from DB (p = .33 > .05) either.

4.1.2.3 Problem-solving Skills

In terms of PS, the third hypothesis was that the students in TB would perform better on PS tests relative to those in LB and DB. In turn, it was hypothesised that there would be no difference in PS as measured by the tests between LB and DB. To examine this hypothesis, it was necessary to compare the mean PS scores between LB, DB and TB.

Table 4.1 shows that mean PS scores were moderately high ranging from TB (M = 61.10, SD = 12.18), and DB (M = 55.39, SD = 12.74) to LB (M = 50.39, SD = 13.36).

Post-hoc comparisons revealed that, as hypothesised, the mean PS score for TB differ significantly from LB (p = .002), and the mean PS score for LB did not differ significantly from DB (p = .13> .05) either, but contrary to the hypothesis, the mean PS score for TB did not differ significantly from DB (p = .08 > .05).

4.1.2.4 Overall academic performances

In terms of Acad., the fourth hypothesis was that the students in TB would perform better on the overall tests relative to those in LB and DB, and there would be no difference in Acad. as measured by the tests between LB and DB. To examine this hypothesis, it was necessary to compare the mean Acad. scores between LB, DB and TB.

Table 4.1 shows that mean Acad. scores were moderately high ranging from TB (M = 62.40, SD = 9.89), and DB (M = 54.94, SD = 10.24) to LB (M = 52.61, SD = 10.47). Post-hoc comparisons revealed that revealed that, as hypothesised, the students in TB performed better on the overall tests relative to those in LB (p < .001) and DB (p = .005), and there was no difference in Acad. as measured by the tests between LB and DB (p = .37 > .05).

4.1.3 Results of Correlation tests

Table 4.2 Correlations for Mean Scores of Lang., Bus. and PS in LB, DB and TB

Group	Type of Test	Lang.	Bus.	PS
LB	Lang.	-	.429*	.465**
DB	Bus.	.548**	-	.437*
TB	PS	.239	.489**	-

LB = language-based group, DB = discipline-based group, TB = task-based group, Lang. = language literacy, Bus. = business knowledge, PS = problems-solving skills, * p < .05, ** p < .01.

The relationships between means for Lang. Bus. and PS were investigated in LB, DB and TB respectively using Pearson product-moment correlation coefficient. Table 4.2 showed the information about tests for H5, H6, H7 as follows.

4.1.3.1 Assumption of Language-based programme

In terms of the assumption of the language-based programme, the fifth hypothesis was that in LB, there would be a positive correlation between the students' performances on Lang. and Bus. tests, and there would also be a positive correlation between the students' performances on Lang. and PS tests.

Table 4.2 revealed that, as hypothesised, in LB, there was a significant positive correlation between the students' performances on Lang. and Bus. tests, $r = .43$, $n = 31$, $p = .02$, and there was also a significant positive correlation between the students' performances on Lang. and PS. tests, $r = .47$, $n = 31$, $p = .007$.

4.1.3.2 Assumption of discipline-based programme

In terms of the assumption of the discipline-based programme, the sixth hypothesis was that in DB, there would be a positive correlation between the students' performances on Bus. and Lang. tests, and there would also be a positive correlation between the students' performances on Bus. and PS. tests.

Table 4.2 revealed that, as hypothesised, in DB, there was a significant positive correlation between the students' performances on Bus. and Lang. tests, $r = .55$, $n = 31$, $p = .001$, and there was also a significant positive correlation between the students' performances on Bus. and PS tests, $r = .44$, $n = 31$, $p = .014$.

4.1.3.3 Assumption of task-based programme

In terms of the assumption of the task-based programme, the seventh hypothesis was that in TB, there would be a positive correlation between the students' performances on PS and Lang. tests, and there would also be a positive correlation between the students' performances on PS and Bus. tests.

Table 4.2 revealed that, as hypothesised, in TB, there was a significant positive correlation between the students' performances on PS and Lang. tests, $r = .49$, $n = 30$, $p = .006$, but contrary to the hypothesis, and the correlation between the students' performances on PS and Lang. tests was very marginal, $r = .24$, $n = 30$, $p = .2 > .05$.

4.1.4 Final interpretations of quantitative data

The above analyses of students' performance on post-tests attempted to answer the research questions in two steps. First, do three CBI methods have different effects on students' academic outcomes? To answer the first question,

- MANOVA revealed that CBI methods may have significant effects on students' academic outcomes, and the significant univariate ANOVAs suggested that these effects were in terms of Bus. and PS, rather than Lang;
- TB appeared to be differentiated from LB and DB based on the overall academic performances.

Therefore, CBI methods seemed to influence students' learning outcomes of academic literacies, but which method was the best? It appeared to be somewhat complex to answer this second question. The correlation analysis, examining the relationships between Lang., Bus., and PS, revealed that,

- in LB, the higher Lang. score a student had, the higher Bus. and PS s/he had as well;
- in DB, the higher Bus. score a student had, the higher Lang. and PS s/he had as well;
- in TB, the higher PS score a student had, the higher Bus. s/he had as well, but there was no relationship between PS and Lang.

However, the post hoc multiple comparisons suggested that,

- TB developed Bus. better than LB and DB did, and acquired PS better than LB did. Therefore, it cannot be denied that LB and DB may improve Lang, Bus., and PS, but these improvements may be not as greater as TB did as a whole.

In conclusion, the TI was better than LI and BI, though some concern needs to be given to the development of academic language skills.

4.2 Thematic content analysis of interview transcripts

Nine students' interview transcripts (*see Appendix VII*) were analysed in Atlas.Ti alongside TCA approach. An analysis of students' interview transcripts was accomplished by the researcher individually to illuminate some categories of descriptions, prepared for further discussion. The analysis started with reading through interview transcripts and selecting those quotes relevant to the interview questions and found to be of interest. Then the researcher focused on the data pool made up by these quotes and explored the meanings embedded in them. Since the purposes and the questions asked in three blocks of interviews were different, the snapshots from the interviews prior to the programme in regard to their pre-perception of this CBI programme were coded and, if possible, compared with the evidence of students' post hoc perceptions drawn from the later two blocks of interviews. After an iterative sorting and resorting of data, continuing development of the categories from different perspectives at different times, as well as grouping and regrouping the quotes from each interview, some categories emerged and stabilised from the analysis of the students' responses to the interviews. These categories included:

- students' previous learning experiences
- students' preferable CBI model
- positive motivation, enjoyment and engagement
- classroom learning support
- learning barriers
- language gains
- business knowledge mastery
- problem-solving skills acquisition
- attitudes towards multiple tests
- improvements

Although the snapshots from 9 students at 3 different stages of the programme appeared to lack the longitudinal track of participants' attitudes towards the programme over time, all of these emerging categories revealed the similarities between snapshots, which revealed some consensus, contradictions and tensions of the responses either from the same respondent or between different respondents, as well as some anomalies from some specific respondents.

4.2.1Students' previous experiences

The CBI approach emphasises the pedagogical principle that students' previous learning experience in a specific academic context and their existing knowledge of subject and current levels of second language skills ought to be taken into consideration in any teaching. It was found that the respondents interviewed appeared to lack the experience of learning subject matter in English and revealed concerns about their English skills.

Student B said 'We never got a chance to learn a specific subject in English before…[We just took] many language courses such as intensive reading, extensive reading, English grammar, translation and so on… Our English is still poor… We can't manage learning the professional subject knowledge by ourselves'. Similarly, Student C said 'we just learned English as a pure language, such as how to write essay, how to communicate, how to read an article… And our English still needs to be improved. It's very hard to learn a specific subject with our shabby English…we are not able to understand those new words, expressions and difficult stuff in the specific subject if we learn it in English.'

Lack of competent teaching staff qualified for the CBI programme was another reason why the students did not have any relevant previous content-based second language learning experience according to the respondents. Student A said 'I don't think our school has those faculties who can deliver this kind of programme to us. Student B also thought 'there are no English teachers in our school who are professional in a specific subject, and there are no [subject] teachers from other department who can teach the professional knowledge in English'.

4.2.2 Students' preferable CBI model

The respondents' were asked which CBI methods (DI, LI or TI) they were would choose before they joined the programme, and they identified the different choices and gave reasons. Student A chose LB because she believed 'the hardest thing' was the 'language skills', and if her English was to be improved, she would learn subject knowledge 'easily' and improve PS. Despite her emphasis on Lang., she expected to learn some 'professional knowledge in business area' and 'business skills' from the lesson as well. She also hoped that the students 'need to understand the materials… and teacher [would] explain those terminological vocabularies and expressions…[and] use simple English to teach Bus.'.

By contrast, Student B chose DB because he believed that the students were 'aimed to pick up the business knowledge and the skills to deal with different situations' in real life, and they were able to 'learn English unconsciously whey [they] are learning the specific subject'. He looked forward to 'a very professional business programme in English' and a classroom instructor 'like a professional subject teacher' speaking excellent English and willing to 'give some explanations of terminologies and complex language'.

Student C chose TB and she agreed with Student B on the learning purpose for acquiring 'the skills to resolve the real problems, because she believed that students would 'learn English and Bus. at the same time when [they] were doing the tasks in the classroom'. Contradictorily, she also said that 'we can't [be] successful [in resolving business problems in English context] if our English is not good or we lack subject knowledge'. She expected the lesson to be 'interactive' with 'group discussion, pair work and… some games'.

4.2.3 Positive motivation, enjoyment and engagement

To increase the learners' positive motivation and enjoyment and hence stimulate their classroom engagement to promote more effective learning is one of the CBI rationales for making use of informational content. In the interviews before the programme started, all of the three respondents expected the imminent teaching activities to be 'interesting' no matter which CBI methods they opted for.

After the students had been involved in the different groups for a few weeks, Student D from LB said 'the articles are very interesting…'. However, he also said 'if we read too many things in a class [we] will be tired. And if we did the same things in each lesson, we [would] lose the interest and motivation'. Another Student G from LB said towards the end of the programme that 'perhaps in the beginning we had the enthusiasm about doing them (language learning activities) because the topics are very interesting and useful, but later on, our motivation decreased'.

Student E from DB commented that '[the programme] is well designed…(and) very helpful to our future study', but she also revealed that 'some of us brought the electronic dictionaries to the lecture every time…when we were trying to work out the meaning of these new glossaries, we couldn't focus on what you said…We felt frustrated at times'. Another Student H from DB said 'the programme was very hard for me especially when the programme just started, I gradually get used to your English when the programme carried on', but he added that 'when you presented some business models and cases which required maths skills…I couldn't follow them closely'.

Tremendous enjoyment was expressed by Student F in TB: 'It's really fantastic! We never had such an exciting programme before…I didn't know those difficult business model could be taught in such a clear and interesting way…I like these activities, so I worked quite hard in your lesson'. Apart from her own reflection on the programme, she showed her concern about other students' engagement in the class and she said

‘perhaps some of them chatted about something else rather than doing your task.’ This concern was confirmed by another Student I’s words from TB. For example, she said ‘perhaps in the first couple of weeks, most of us were quite into those activities and slowly we are getting lazy.’ In addition, an anomaly derived from Student I’s response was her query about students’ effort made in the classroom activities, as she said ‘I don’t know how you could make sure every student in the classroom worked equivalently hard on your task’.

4.2.4 Classroom learning support

In the interviews prior to the programme, all of three respondents expressed their expectation for either language or Bus. support by teacher’s slower speech and explanation in the classroom. Nevertheless, one of the anomalies emerged from their responses was teacher’s instruction language. Although these students were not that confident about their English, student A thought some explanations in their first language (Chinese) to be unnecessary during the teaching and hoped that the teacher ‘speak English all the time’. Student B said ‘I hope all Bus. and skills will be taught in English’.

By contrast, another six respondents reflected on their classroom learning experience after they had been involved in three different CBI programmes. Student D from LB said ‘sometimes we didn't know how to deal with Bus. and PS…We couldn’t understand these business knowledge if you didn't help us to overcome the language barriers…’. Another Student G from LB described the conflict between Lang., Bus., and PS. in the process of learning as ‘when we focused on Lang., we couldn't focus on Bus. and PS. too much’.

Although the teacher attempted to help the participants to overcome as many language barriers as he could, the Student E from DB said ‘we came across too many vocabularies, professional knowledge and specific skills, and we could not get them in the lecture… We didn’t get any specific guide and practice in listening, speaking

and writing'. Similarly, another student H from DB said 'we didn't get enough help with our poor English to understand these business topics'. He also pointed out that 'we [were] only shown those business models and some formats to solve the business problems but we [didn't] get enough time to practice them'.

In comparison with the respondents from LB and DB, Student I from TB appeared to hold a more optimistic attitude toward teachers' support in the classroom, and she said 'we feel that you didn't teach us by yourself, but just led us the way to acquire those knowledge and skills by pair work, group work… You gave us a very clear instruction to do those tasks and help us with some business vocabularies and expressions in the activities'. However, Student F, also from TB, gave some negative feedback on TI and she said 'we were doing the tasks all the time and we felt very tense when we lacked Bus. and found we couldn't express ourselves in English especially as to those business vocabularies and phrases'.

4.2.5Learning barriers

The limited language skills and a lack of previous Bus. were regarded as two major learning barriers according to the interviews before the programme started. Three weeks after the programme started, Student D from LB said 'the most materials we used in the lecture were difficult and challenging, and the most difficult thing is that we still lack the business background…we can't understand these knowledge in a deep sense'. At the end of the programme, Student G also from LB said '…it's really hard for me to understand those articles. Sometimes there were four or five new words in a sentence. I couldn't get the meaning at all. Although we did a lot of language work on these articles, as a result I got the language of them, but I didn't learn how to [resolve] some business cases.'

Student E from DB attributed the learning barriers to the underdeveloped Lang. and she said 'we still struggled with English. Our poor English stopped us learning business knowledge and skills further'. Ironically, Student H from DB as well

pointed out ‘they (Bus.) are really hard, even if you taught them in Chinese, I’m not sure if I could manage them or not’.

Some anomalies emerged regarding the respondents from TB. Student F said ‘for those who didn’t work hard…maybe it’s because …they were not very interested in these tasks…may be they couldn’t manage it (understand teachers instruction and guidance quickly).’ Student I was concerned about individual differences and contribution in the teamwork and she said ‘When I was in the group work, I would like to make some contribution …but I’m not that outgoing and eloquent, so I did not have enough time to express myself…Sometimes if you gave us a challenging task, everyone shirked the duty and didn’t collaborate with each other as a team’.

4.2.6 Language gains

It was predicted by Student A who chose LB and Student B who chose DB that LB would ‘perform the best on Lang. test because they would get more help in language. However, Student C who chose TB believed that the participants in TB would ‘learn English… better than the other groups’.

After the programme had started, Student D from G from LB confirmed that the programme provided them with some chances to ‘practice reading skills such as skimming and scanning, paraphrasing the sentences as well as summarising the ideas’, and both of them believed that their tests’ results were generally in consistent with their perception of language gains in LB. However, an idiosyncratic answer from Student G expressed her discouragement over her writing and speaking performance on the tests, and said ‘sometimes I didn't get good results on my writing and speaking… I’ve got nothing to write, nothing to speak because I learned very little about that business topic in the lecture’.

Student H from DB said ‘the programme more or less played an active role in improving our English skills…at least we get more opportunities to learn English’,

but the programme appeared not to help him perform better on writing tasks in the tests, as he added 'I'm not good at words, so if the tests were more based on writing some ideas, my marks were very poor'. Another Student E from DB also believed 'the programme… gave us lots of chances to practice listening skills', but she pointed out 'it's less possible to improve them (Lang.) within a short period of time…I don't think I improved a lot in English proficiencies. Consequently, she attributed her acceptable performance on language parts in the tests to her previous English skills and she said 'probably because my English was not so bad before the programme'. It was worth mentioning that, albeit she was involved in DB, she expressed the same concern on the writing tasks as Student G from LB did. She said 'I had few ideas about the topic of writing tasks because I didn't get what you taught me in the lecture'.

Student F from TB emphasised that 'we kept on speaking English all the time in the lesson…we got many opportunities to practice spoken English and communication skills with our group members and partners…so I think my English skills can be improved'. She was also confronted with the problem of writing essay questions, but she said 'I didn't know how to express the ideas in the right way in academic writing'. This response was different from the reflections on the same problem of writing from Student E in DB and Student G in LB. By contrast, another Student I from TB said 'I am not that outgoing and eloquent…I didn't get many chances to practice my English in communication…I think our listening, reading, and writing were not enormously influenced by the programme'. However, she was satisfied with her performances on Lang..

4.2.7 Business knowledge mastery

It was predicted by Student A who chose LB and Student B who chose DB that LB would 'perform the best on Bus. part of the test because they would 'concentrate on it'. However, Student C who chose TB believed that the participants in TB would 'learn Bus. better than the other groups' because they would 'work harder'.

After the programme had started, Student D from LB commented ‘I don’t think we learned them (Bus.) well because [our] attention was drawn more on the language development…I really did quite badly on Bus….’. Likewise, another Student G from LB said ‘we did learn some business knowledge and skills, but we learned very little in this programme, to be honest’. Although DB was focused on Bus., both Student E and Student H said ‘I didn’t learn them (Bus.) quite well. By contrast, the responses from TB were more positive. For example, Student I said ‘I find that difficult knowledge…not that hard to learn any more…I learned some Bus….apparently.’

4.2.8 Problem-solving skills acquisition

There was a consensus among the three respondents that TB would perform the best on PS. because they were given more opportunities to practice these skills in the classroom. After the programme started, the respondents from TB appeared to hold more positive views than those from LB and DB in general. However, some anomalies emerged within this category. Student H from DB, despite complaining about a lack of time to practice PS., he was pleased with his performance on PS items in relation to calculations and said ‘I remember the two tests, one [was] the balance sheet and income statement, the other one [was] NPV, I nearly got the full marks…’ On the contrary, Student G from LB said that her scores on PS item were poor, ‘especially those questions need mathematical skills’. Student I from TB was also disappointed about her performance on those numerical PS. and she said ‘I’m not good at maths, and I hate numbers and calculations. I can’t do them at all.’

4.2.9 Attitudes toward multiple tests

After the programme started, all six respondents in the interviews held positive points of views toward the multiple hybrid tests applied because of their contents relevance and topical focus. Student D from LB said ‘we [were] tested by what we [learned] from the lecture. And the contents fit the materials we read closely.’ Student E from DB said ‘I like these quizzes after each lecture, so we don't have heavy burden to [revise] lots of knowledge after we finish the whole programme…these

questions are all related to the knowledge and skills we need to learn on that topic.' Student I from TB said 'All the topics of language [items] were linked to the contents we learned in the lesson. They (the tests) did not test us anything we hadn't learned.' However, this student raised an interesting issue in the assessment and she said 'if possible, evaluate our academic outcomes upon our performances in the team work like Assessment Centre'.

4.2.10 Improvements

Respondents appeared to make suggestions for improvement of the programme on the basis of the components that the other two groups had. Student D from LB suggested 'the programme could be designed to give us more understanding of business knowledge skills instead of language skills, for example, some interesting activities in a real business situation', whereas Student E from DB said 'could you…give us some opportunities to practice these skills (Lang.) by ourselves through some classroom activities'. Student F from TB said 'it's already very good…I would like you to give us some more articles to read and then we'll understand that knowledge and master those skills better'. Another Student I from TB added 'you might spend more time to help us summarise the business knowledge and master the business skills'.

Chapter V Discussion

The quantitative data of this study indicated that, the TI was likely to improve students' learning outcomes of academic literacies, particularly in terms of Bus. and PS, better than LI and DI, due to its wide range of strengths to promote the teaching-learning effects. However, analysis of this data just attempted to answer 'what' was the most effective CBI method based on students' performance on the post-tests. In order to enhance the answer to 'why' TB outperformed LB and DB on the whole, the follow-up thematic content qualitative probing of students' satisfaction with different CBI methods aimed to explain quantitative results. The interpretation and discussion begin with exploring the overlaps, tensions and conflicts between LI and DI and TI, as evidenced by the quantitative data, some of which seek the explanation from thematic content analysis of qualitative data, in comparison with the findings and assertions in reference to the previous literature.

The assumptions of three CBI methods were first scrutinised based on the results of correlation analysis of mean Lang, Bus., and PS scores in each group to explore relationships between different aspects of academic literacy. Some definitions and rationales of CBI and CBI models were revisited, further supported by the participant students' reflection on their choices of CBI methods and learning barriers. Second, the differences in three aspects of academic literacy between the groups were examined respectively with the results of post-hoc multiple comparisons, to investigate the teaching-learning effects of different CBI methods in details. The findings at this stage are related back to the literature review in comparison with the empirical evidence from previous studies. Meanwhile, students' positive motivation, enjoyment, engagement, and learning support as well as their reflections on personal performance on post-tests were referred to provide some interpretations and inferences of these three sets of mean scores. The differences in overall academic outcomes between groups with three CBI methods were displayed based on the MANOVA and follow-up post-hoc comparisons. The reasons of these differences

were further explored in reference to students' suggestions on improvement, attitudes toward the assessment, and their previous learning experience, which were linked to some practical considerations claimed by other researchers. Finally, some pedagogical implications are made based on seeking an effective CBI curricular 'gearing', which considers different curricular representations of academic knowledge and recommends the emancipatory TIs from the perspective of Grundy's (1987) theory of cognitive interests.

5.1 The consistency of diverse academic literacies development across different CBI groups

Understanding the interactions between academic language proficiency, disciplinary knowledge and problem-solving skills is probably the greatest challenge of different kinds of CBI programmes at tertiary levels. One of the debates on three CBI curricular models described in this study, which developed from the intensive discussion in CBI community, was to what extent each type of CBI method would improve students' study and cognitive skills sufficiently (Snow, 1993). Both Short's (2002) insight into the overlaps of three academic domains, and Beckett and Slater's (2005)'s interview study on interrelationships of language, content and skills learning made exploration of these relationships worthy of investigation. Therefore, the artificial separation of different CBI methods in this study was intended to further examine and better understand the relationships consecutive of these different academic skills, though Briton, Snow and Wesche (1989) claimed in the original publication of *Content-based Second Language Instruction* that, the configuration of CBI programmes in practice may incorporate the features of different CBI models.

The underlying common purpose of different CBI models is to encourage 'the concurrent teaching of subject and second language skills' (Briton, Snow & Wesche, 2003: p.5) and to develop a wide range of transferable academic abilities. These multiple purposes of these CBI curricula, were not only advocated by course designers and teachers in a 'top-down' direction, but also appealed from students

'bottom-up' voices. Prior to the teaching sessions, the three interviewed students all expressed their aspirations to simultaneous learning of language and business knowledge, irrespective of different choices of CBI methods. For example, Student C expected to 'learn English and business knowledge at the same time when they were doing the tasks in the classroom'.

The Language-based programme for academic purposes presupposes an 'academic core' based on which students may transfer academic skills across disciplines. The discipline-based programme for business purposes assumes that acquisition of language literacy and realisation of problem-solving skills are the incidental and implicit learning outcomes of communicating concrete business knowledge. The task-based programme suggests that the development of different academic abilities is likely to be fulfiled by completion of a series of classroom educational activities. These theoretical assumptions embedded in three CBI programmes were examined by exploring the relationships between students' learning outcomes of academic literacies in three groups (*see Table 4.2*). The results of correlation tests appeared to indicate that every CBI method was likely to promote the development of multiple academic abilities to some extent, though a significant positive correlation between students' performances on academic language literacy and problem-solving skills seemed to be not found.

Concerning the purpose and learning focus of the programme, LIs aimed to help students develop academic language competence, and the primary aim of DIs was to help students master business knowledge. In LB, the language learning has a business orientation and business knowledge learning occurs implicitly, while in DB, the incidental language development was expected to be achieved in business knowledge learning. The significant positive correlations between Lang. and Bus. found in LB(r = .43, p =.02) and DB (r = .55, p =.001) appeared to confirm that the improvement students' Lang. may help students better master Bus. and *vice versa*. Although the separation of CBI models received criticism for its lack of distinction

between some curricular features such as curriculum focus and teachers' roles in practice (Davison & Williams, 2001), the effects of different CBI models on dual improvement of language proficiency and disciplinary knowledge cannot be denied. According to Garson, Taylor and Fredella (1997: 370), 'CBI does not provide a principled basis for deciding on course focus where content mastery is either unnecessary or inappropriate'. In this study, Student A, who preferred LI, expected to learn some 'professional knowledge in the business area and business skills' from the language lessons, whereas Student B, who chose the DI, believed they were able to 'learn English unconsciously when they [were] learning the specific subject.

In addition, the significant positive correlations between Lang. and PS in LB (r = .47, p =.007), as well as between Bus. and PS in DB (r = .44, p =.014) further implied that the realisation of academic problem solving skills appeared to rely on higher level of academic language literacy and better mastery of disciplinary knowledge. In this sense, the latter two aspects of academic literacy seemed to be essential for cultivating students' versatile academic problem solving skills. As asserted by Short (2002) in the LCT model, students may find difficult to solve the problems in tasks without sufficient disciplinary knowledge or preparations for language skills. Student C's words in the interview echoed Short's (2002) viewpoint as 'we can't be successful in resolving business problems in English if our English is not good or we lack the subject knowledge'.

5.1.1 The emphasis on a language-based 'academic core'

CBI, originally a revolution in teaching methods in SLA (Swain & Lapkin, 1982, Stern 1984, Gensee, 1987), emphasises the role of content in maximising the opportunities for students to contextualise the target language. LI was highlighted in some early definitions of CBI (Crandall & Tucker, 1990; Wesche, 1993; Chaput, 1993; Genesee, 1994) and its primary rationales (Briton, Snow and Wesche, 1989: 3-4). The significant positive effects of Lang. on Bus. and PS discovered in LB (*see Table 4.2*) appeared to support the benefit of many intensive language-based programmes (Parkinson, 2000; Short, 2002; Kol, 2002; Iancu, 2002), which focused

on the development of academic language literacies through disciplinary materials. For example, in South Africa, science students benefited from Parkinson's (2002) theme-based language course, with positive evidence from their final written research report assessed based on both language literacy outcomes and subject comprehensions. Student A, one of the interviewees before the teaching started in this study, prioritised the language learning, and believed that subject knowledge could be 'easily' learned if her English proficiency improved.

The language-based programme in this study was similar to those intensive EAP courses, which placed stress on lexical components, discourse structures and generic features of the business materials. Rather than drawing language materials from a wide range of general topics, in this programme, a variety of academic language activities was organised based on a specific business topic. By doing this, the general 'academic core' across disciplines assumed in most EAP programmes was narrowed down to a 'business academic core', which resonated with Bhatia's (2004) advice on in-depth integration of language literacy practices in a specific disciplinary area. Student B and C in this study expressed the same concerns on the conflicts between traditional language literacy courses and disciplinary English learning in academic areas. For example, Student C described these traditional courses as 'we just learned English as a pure language, such as how to write essays, how to communicate and how to read an article…' In addition, the selection of content for these courses is supposed to meet learners' cognitive demand, and the topic chosen ought to be 'important' and 'interesting' to learners (Garson, Taylor and Fredella, 1997). However, the extensive topics chosen may not efficiently accommodate those ESL students for business purposes, as Student C articulated, 'we are not able to understand …difficult stuff in the specific subject'. This reflected Zhang's (2007) concern about the disengagement of business conventions from language skills courses in China. He criticised these traditional language courses for its inadequate consideration of disciplinary context.

Nevertheless, the question on the use of unified academic discourse in traditional EAP lessons does not mean that language-based literacy programmes can be underrated. On the contrary, the design and implementation of these language courses called for emphasis on the disciplinary register, which may 'contribute to the pedagogic effectiveness of literacy practices' (Bhatia, 2004: 64). Early in 1994, Curtain and Pesola defined the content of CBI as the academic subject matter taught through the foreign language.

For example, in Week 3 on the topic of 'Age dependence theory' (management), a variety of language activities around an excerpt of books were carried out in LB. There were many new words such as 'adolescence', 'senescence', and 'obsolescence', and this noun-formation with the *–scence* was introduced to help students comprehend the assigned text. Although the 'specialised vocabulary' approach seemed to be deficient in academic discourse analysis and interactive language development (Ellis & Johnson, 2002), the students may benefit from gaining a linguistic hint that how this lexical structure makes sense of disciplinary concepts. Some previous studies indicated, apart from comprehensible second language input, a certain level of instruction on code features may benefit learners, according to Long (2001). Student A, who chose LB before the programme started, hoped that '[the] teacher would explain those terminological vocabularies'. Student G in LB, found it very difficult to comprehend articles because at times she was confronted with 'four or five new words in a sentence'. This concern was also raised by another student (D) in LB, who believed that they would fail to understand the disciplinary knowledge without the help 'to overcome some language barriers'. Learning some word analysis skills and applying them in content reading materials may help students tackle a number of new vocabularies to facilitate comprehension (Iancu, 2002).

The results of post-tests in LB also indicated that students' better mastery of business knowledge appeared to benefit from better higher level of language proficiency. The

positive effects of LI on other aspects of academic literacy may be derived from metalinguistics and language learning strategy, in addition to those language instructions on glossary comprehension and pronunciation (Short, 2002). Besides, Briton (2007) pointed out that the selection and sequence of language components should be determined by the content in the CBI programme. For example, in Week 2 on the topic of 'recruitment and selection' (HR), students in LB learned how to apply strategies for note-taking when they listened to an audio clip of job interviews. During the listening task, students were required to focus on the interviewer's interviewing skills such as what structure of the interview they adopted (e.g. structured, semi-structured, or unstructured) and what types of questions they asked (e.g. multiple, leading, provocative, or embarrassing). These activities may develop students' ability to explore the key information from their notes (Iancu, 2002), and help them better understand the reliability and validity of the job interview.

Regarding reading skills, in Week 4 on the topic of PESTEL (Marketing), for instance, students under LI were required to read a newspaper article about the European brewing industry, and class the information into six categories – political, economic, social, technological, environmental, and legislative factors. Before the reading task, the teacher specified some reading strategies such as skimming, scanning and speeding up reading velocity to encourage the students to identify the key information within a limited period of time. Using these materials in connection with disciplinary knowledge instead of using general ESL reading materials may help students construct meanings by interacting with the text, according to Kol (2002), and the literacy skills are taught as means to facilitate this interaction. When the text is used as a carrier of meaning, rather than the example of usage, these reading tasks may efficiently prepare students to understand Bus. and develop PS. The programme with LI also aimed to teach students how to write an academic paper by emphasising correctness, clarity and fluency of writing as well as rhetorical organisation.

For example, in Week 8 on the topic of 'investment techniques' (Financial Management), students were required to write a summary of different types of investment appraisal methods (PBP, AARR, NPV and IRR). The teacher focused on the language instructions such as how to make main point in the paragraph, how to present relevant descriptions, how to support critical argument, how to use academic quotations and citations in support and how to avoid use personal and emotive language. Different from those writing lessons described by Esteban and Cañado (2004) on business correspondence, *curriculum vitae* and business reports, the writing activities implemented in this study centred on the relevant disciplinary topic coherently for the purpose of improving students' writing skills in a specific business academic area, rather than developing business communication skills as formulaic 'gambits'(St. John 1996). Likewise, the speaking activities in LB were also closely linked to the relevant business topic, instead of emphasising wide-ranging business communication skills such as telephoning, arranging meetings and making appointments. For example, in Week 1 on the topic of 'Game Theory' (Economics), students were required to retell a story of 'The rational pigs' in pairs and help the partner comprehend the story by oral interactions.

Teaching academic English literacy through a 'single content area', which featured all the learning activities in LB, provided an in-depth treatment of the discipline (Brinton, 2001; Janzen, 2001; Mendelsohn, 2001) and led to deeper engagement with content sources and meaningful content learning. Besides, these language activities equipped the students with the necessary language skills they should master to accomplish the task (Short, 2002), and facilitated critical thinking, extensive reading and opportunities for comparison, contrast, synthesis, and evaluation, as argued by Murphy and Stoller (2001). These claims can be supported by the results of correlation test in LB, which revealed the important positive effects of the academic language literacy on the development of business knowledge and diverse academic problem-solving skills.

5.1.2 The importance of acquiring disciplinary content

The criticism of superabundant language instructions on learners and the reflection from unconscious first language learning experience (Krashen, 1985; Long, 1990; Swain, 2000; Lightbown & Spada, 2006) gave rise to the meaning-based approach, which was widely used in content-based sheltered classrooms(Long, 2001). The primary rationales of CBI highlighted the importance of meaningful, comprehensible and contextualised content input and learners' eventual uses in the target language (Briton, Snow & Wesche, 1989).The CLIL which emerged in Europe in the last decade reiterated that language proficiency cannot be achieved at the cost of compromising mastery of disciplinary knowledge (Coleman, 2006; Stohler, 2006; Set, 2008). Student B, who chose DB in this study, looked forwarded to 'a very professional business programme in English', because he believed that the aim of learning was to develop the 'business knowledge and skills' in the real life, and they were able to 'learn English unconsciously' under DI. This perception, which underlies the assumption of DB, suggested that foreign languages can be best learnt through the subject content but not the language itself (Marsh & Langé, 2000; Wolf, 2007).

The significant positive correlations discovered between the students' performances on Bus. and Lang. in DB (*see Table 4.2*), seemed to imply that learning non-language-related disciplines in the target language provided effective opportunities for learners to facilitate the high-level language proficiency (Briton, Snow & Wesche, 1989), rather than allocating extra time to build a language reservoir for later use (Holdsworth, 2004). Iancu (2002) also emphasised the important role of the content courses and subject professors played in the CBI adjunct model, because content instructions provide a natural context for academic input in favour of language acquisition and cognitive skills development (Spanos, 1990).

Unlike the students in LB following clear LIs, students in DB were held responsible for analysing the language subconsciously and developing academic language literacy based on the positive input of business knowledge in English. Many sheltered courses in the US and CLIP programmes in the UK required students to learn the disciplinary knowledge even if their language proficiency was limited (Met, 1999; Murphy& Stoller, 2001; Wiesemes, 2009). Albeit less confident about their English proficiency, three students interviewed prior to the programme in this study consensually agreed that the lessons should be taught completely in English. Student H from DB believed the programme to be 'very hard' in the beginning, but he was able to manage the English gradually when the programme progressed. Zhang (2007) also claimed that using English as the instructional language may help students effectively learn about the ways of tackling business knowledge in English. Teaching business knowledge in English 'at least' provided 'more opportunities to learn English', and 'more or less played an active role in improving English skills', according to Student H, who was likely to express the collective attitudes of DB.

The business knowledge presented in DB aimed at promoting in-depth discipline learning and preparing students for joining the subject academic community, rather than helping students develop functional communicative skills in business world or language literacy (Zhang, 2007). Under the DI, business knowledge was delivered to the students by means of the teacher's oral explanations, visuals and supplementary readings. For example, in Week 5 on the topic of 'Financial Statements', the students were required to take four 'accounting' lessons to understand the nature, purpose, formats, conventions, and limitations of the balance sheet, income statement and cash flow statement. Playing a role of 'professional subject teacher', as expected by Student B who chose DB, the teacher focused on the content learning objectives and delivered all the classroom instructions around accounting knowledge. Although the language support from the teacher such as slower speech and explanation of terminologies was limited to help students follow the DI, rather than helping students acquiring language skills, Student E from DB articulated that 'the programme gave

us lots of chances to practice listening skills'. The reason may be that the student had to concentrate on the teacher's oral instructions in order to comprehend the business information such as the illustration of different items embodied in the balance sheet and the ensuing interpretations. The students developed their listening skills spontaneously when they were engaged in this content learning process. As a matter of fact, the students in DB did not underperform on the listening tests in comparison with those in the other two groups. Besides, the teacher in DB also addressed the learning strategies for accessing, processing and memorising the business knowledge (Short, 2002).

For instance, the teacher presented an basic equation (Fixed assets + Current assets = Capital + Long-term liabilities + Current liabilities) and provided several examples to illustrated the financial meanings and relationships of different items included in the balance sheet, and the students were informed how to identify and evaluate the relevant information in corporate annual reports. All these DIs helped students revisit the disciplinary knowledge from different perspectives and resources, which promote the mastery of subject content (Stoller, 2002).

Moreover, *Table 4.2* also revealed that, under DIs, better mastery of Bus. appeared to facilitate better development of PS. The systematic business knowledge is an indispensible aspect of academic literacy to solve a series of business problems in academic settings. Stoller (2002) claimed that the development of disciplinary expertise ought to be premised on the comprehension and acquisition of disciplinary knowledge. To what extent the students master the business concepts, facts, procedures, cultures and conventions may decide how successfully they perform on those business tasks requiring problem-solving skills. For example, Student H from DB gained high marks on his performances on PS tests pertinent to mathematical calculations (i.e. financial statement, investment techniques), though he complained about a lack of opportunities to practice PS. Equipped with those business models and formulas, some students in DB were likely to apply them automatically to

solving the academic business tasks in the tests. To sum up, using business materials as the classroom instructions may not only help students master business knowledge, but also significantly improve students' comprehensive academic literacies in the relevant business area including language proficiency and problem-solving skills.

5.1.3 The necessary development of academic problem-solving skills

The recent movement of learner-centred and task-based teaching encourages the realisation of diverse academic abilities by means of accomplishing a series of classroom pedagogical tasks in collaboration. The TI hence was advocated in the SLA and CBI community due to its further promotion of students' affective motivation and active interaction (Doughty & Williams 1998; Long, 2001). Student C who chose TB prior to the teaching phase, expected the lesson to include some 'interactive' activities in which English skills and business knowledge can be also developed simultaneously.

In TB, students actively participated in a variety of teaching-learning activities aimed to develop diverse academic abilities, and the TIs were also explicitly or implicitly held liable for the development of Lang. and Bus. The teacher in TB handed over the responsibility for learning to students, and encouraged their autonomy to make their own learning decisions and manage their own learning behaviours (Scharle & Szabó, 2000). Instead of 'teaching by himself', as described by Student F from this group, the teacher gave clear TIs to guide them in completing the group or pair work, in which they developed language literacy and disciplinary knowledge on their own. The students in TB engaged in a process of scaffolding to internalise all sorts of academic literacies by interpreting the academic tasks, set their learning objectives, and chose the way of collaborating with other students (Ellis, 2000). The interactions between declarative and procedural knowledge (Gagné *et al*, 1993; Chamot & O'Malley, 1996) suggested that students need to be offered opportunities to apply and practice different types of academic literacies in authentic interactive contexts.

The social-cultural theory advocated constructing knowledge by means of dialogic interactions in collaborative activities (Vygotsky, 1987). The students in TB were expected to realise the language acquisition and business knowledge mastery moving from the inter-psychological classroom tasks to intra-psychological internalisation. For example, in Week 3 on the topic of 'Age Dependence Theory' (Management), the students in TB were required to diagram out the graphics of liability of newness, endowment and liability and old age mortality among the populations of organizations in groups, based on reading and understanding the relevant excerpts from the textbook. In the class, the teacher provided a set of explicit instructions on metacognitive, cognitive and social affective strategies (O'Malley & Chamot, 1990) to guide the students in accomplishing this task jointly. These instructions including how to plan, organise and perform the task as a group, how to use the graphics to depict and synthesise the textual information, and how to collaborate and communicate with the group members, aimed to boost students' motivation, self-confidence and self-efficacy. Following the instructions, the students arranged reading activities, group discussions and diagramming within a team and eventually completed the learning task jointly. Learning of language and business knowledge then occurred automatically during the interactions between students when they were involved in this kind of comprehensive task.

Both from TB, Student F in the middle of the programme, and Student I towards the end of the programme, claimed that the holistic activities helped them effectively learn the difficult business knowledge. As can be seen from *Table 4.2*, the significant positive correlation discovered between PS and Bus. (r = .49, p =.006) confirmed that the emphasis on the development of students' PS was contributed to the better mastery of Bus. in TB. Besides, Student F from TB believed that they were also provided with many opportunities to speak English and hence the development of English literacy could benefit from these classroom tasks. However, the correlation between PS and Lang. (r = .24, p =.2 > .05) was only marginal in TB, which implied that the positive effects of TIs on the academic language development appeared to be

not obvious in this study. Despite a lack of findings in the significant positive correlation between PS and Lang. in TB, the students' excellent overall academic performances in TB may still support the claim that TIs are likely to effectively develop the disciplinary knowledge and academic language literacy (Crandall, 1993; Groose 1988; Beckett, 1999; Echevarria, Vogt, & Short, 2000; Short, 2002; Navés, 2009).

5.2 The comparisons of academic achievement between the CBI groups

The one-way MANOVA of the students' academic performance of post-tests (V = .21 F (6,176) =3.46, p = .003 < .05) indicated that using different CBI methods had a significant effect on students' academic outcomes. The early basic CBI models along the continuum (Brinton, Snow & Wesche, 1989; Met, 1999) and the current variations of triarchical framework (Chamot & O'Malley, 1996; Short, 2002; Beckett & Slater, 2005; Zhang, 2007) aimed to promote the simultaneous development of diverse academic literacies, and the latter called for empirical evidence on programmes evaluations to validate and support task-based instructions in CBI classrooms. The univariate AVOVAs following the MANOVA in this study further confirmed that the significant between-group students' academic outcomes differences lay in mastery of business knowledge (F (2, 89) = 6.47, p = .002, partial eta square = .13) and development of academic problem-solving skills (F (2, 89) = 5.36, p = .006, partial eta square = .11), but not in the performance on academic language literacy (F (2, 89) = 3.18, p = .046 > .017, partial eta square = .07). Nevertheless, the task-based instructions, due to its pedagogical effectiveness in teaching business concepts and procedures, as well as a variety of academic problem-solving skills, enabled the students in TB performed generally better than those in LB or DB (F (2, 89) = 7.62, p = .006, partial eta square = .15). It can be seen that the effect sizes of statistical significant differences between the groups appear to be medium or large, according to Cohen (1988: 22).

5.2.1 The comparison of students' performance on academic language literacy tests

The students in TB were expected to perform better than the other two groups, because TIs offered ESL learners opportunities to develop their academic English proficiency with genuine business materials in collaborative and holistic sheltered practices (Esteban & Cañado, 2004). However, the univariate ANOVA for Lang. indicated the differences in students' learning outcomes of academic language between LB (M = 63.00, SD = 7.10), DB (M = 60.35, SD = 8.95) and TB (M = 65.43, SD = 7.42) were not significant (see *Table 4.1*). Despite the fact that the students in TB were given chances to internalise language learning by communicating and collaborating with others, the limited language instructions in the implementation of classroom tasks, as pinpointed by Short (2002) in his study, may impede students' academic language literacy development. Student F from TB criticised the classroom activities for its lack of instructions on how to write academic essays. Another Student I in TB believed that their progress in academic language proficiency was not substantially influenced by the programme under TIs.

The students in this group appeared to lack sufficient language support to help them express ideas accurately in group discussions (Esteban & Cañado, 2004), according to Student F in the interview, though some business vocabularies and expressions were provided prior to the classroom activity. As a result, insufficient clear instruction on the language was likely to lead the classroom activities such as case study to become exchanges of personal views, according to Esteban & Cañado (2004). The concern on insufficient language support was also raised in the study of project-based approach (Beckett, 1999; Beckett & Slater, 2005).

Likewise, the students in DB were also concerned about the language barriers facing them during learning business knowledge, and their lagging development of Lang. under DIs. Although the instructor tried to help the students overcome the language barriers by means of explaining business terminologies and slowing down the speech, the students in DB expressed their concerns on the limited effect of DIs on the academic language development. For example, Student E and Student H, from DB,

believed that the programme under the DI did not offered enough help with understanding content in English or many chances to practice four language skills. The competent performance of DB on the listening tests seemed to suggest that student may acquire the language subconsciously with this meaning-based approach (Long, 2001), but their poor performance on the reading, writing and speaking tests implied the danger of depleting the LI in the sheltered classroom (Short, 2002). Student H expressed the similar concern as the students in TB had on the academic writing, and Student E attributed her acceptable performance on Lang. tests to her previous level of English proficiency.

Student E also pointed out that she was not able to integrate the business content into essay writing tasks for the reason that she failed to learn about the knowledge in the class, and she expected to practice language skills through 'classroom activities'. Besides, Student F also looked forward to reading more academic articles in order to further promote business knowledge learning. Short (2002) pointed out that, some discipline teachers who insisted language be taught in separate classes, were aware of the need to incorporate language development into subject teaching. Therefore, in DB, it appeared to be difficult for students to effectively acquire academic language literacies required in mainstream classes to meet the non-language disciplinary standards, because they did not receive systematic language treatments (Short & Echevarria, 2004).

By contrast, LB aimed to develop students' academic language proficiency, but the students in this group did not perform significantly better than the other two groups, either. There seemed to be a consensus among the interviewees in LB that their performances on Lang. tests benefited from the programme under LIs. These LIs helped students master the L2 knowledge and guided them in using language learning strategies to practice and improve four traditional language skills (Short, 2002). Those language materials designed around a business topic were interesting and encouraging, according to Student D and G, however, their motivation and

enthusiasm about repeating these language activities were likely to decrease. As a result, when students were given writing or speaking tasks in the tests, they found it difficult to include the relevant business content they learned from the lessons in their answers, as raised by Student G in the interview, and eventually their post-tests results on these Lang. items seemed to be less satisfactory.

Kol (2002) cited Swales (1990: p.215) argument in her case study of content-based courses that 'teaching of rhetoric cannot be divorced from the teaching of content, and therefore English have little or no knowledge of the discipline cannot adequately teach or respond to discipline-specific writing'. Besides, despite the fact that the students in LB learned about some reading skills such as understanding referents, identifying definitions and locating cause/effect connectors, these general skills were likely to be inapplicable for tackling some disciplinary texts with specific discourse styles and structures, as pointed out by Kol (2002) in her study on the feature of reading skills for mathematics. Therefore, a lack of non-language content instructions in language literacy programmes may be less effective to reinforce students' academic language literacy (Iancu, 2002) and help them directly enter the disciplinary community of L1experts in English (Briton, Snow & Wesche, 2003).

5.2.2 The comparison of students' performance on business knowledge tests

Given the TI, the students in TB were hypothesised to perform better on Bus. tests relative to those in LB and DB, due to its positive effects on promoting the mastery of disciplinary content (Crandall, 1993; Chamot & O'Malley, 1996; Vogt & Short, 2000; Stoller, 2002; Kol,2002Short, 2002). As can be seen in *Table 4.1*, the post-hoc pairwise comparisons following the MANOVA indicated that TB (M = 60.73, SD = 17.97) benefited from those interactive and collaborative classroom activities and appeared to outperform LB (M = 45.00, SD = 18.07) and DB (M = 49.35, SD = 16.74).

Student F and I from TB who participated in the interviews considered those pedagogical tasks as effective and interesting ways to help them acquire business knowledge, because these TIs encouraged them to foster sense of independence and self-efficacy under teachers' support to promote effective learning (Chamot & O'Malley, 1996). Since these TIs could help them boost up self-confidence and self-motivation (Bandura, 1986; Zimmerman, 1990; O'Malley & Chamo, 1990; Iancu, 2002), which enabled them to 'work hard' in the classroom, according to Student F and I, the understanding and mastery of business knowledge seemed to become comparatively 'easy'. For example, students were provided with a case study of 'Paul's wrapping business venture' (Atrill & McLaney, 2004: 20) and some instructions on how to identify the useful financial information and how to implement the group tasks. Following these instructions, students were expected to explore the relationship between three different types of financial statements on their own by collaboratively completing the assigned task. It can be seen that a series of sequential TIs may provide students with chances to translate their understanding and critical awareness of business procedures and conventions into interactive business practices (Zhang 2007). The outstanding learning outcomes of business knowledge in TB appeared to reverberate with the anecdotal evidence suggesting that using some instructional strategies in sheltered classrooms was likely to facilitate the comprehension of disciplinary knowledge (Crandall, 1993; Echevarria, Vogt & Short, 2000).

Contrary to the hypothesis, the students in DB appeared to not perform significantly better on Bus. tests than those in LB did (*see Table 4.1*), though the discipline-based programme aimed to develop students' understanding and mastery of business knowledge. A considerable number of new glossaries, limited academic language proficiency and lack of practices seemed to become the learning barriers for DB. For instance, some students had to use the electronic dictionaries to look up vocabularies to understand the lecture, according to Student E from DB. Consequently, they were not able to focus on the business knowledge delivered.

Although the discipline instructor tried to help them overcome the language barriers, as articulated by Student H, the insufficient support on English still prevented them from fully understanding the business topics. Apart from language difficulties, the overreliance on teacher and rote-learning (Flowerdew, 1991; Snow, 1993) of the discipline-based approach was less likely to promote effective content learning despite presence of abundant content resources in the classroom. For example, even if the lessons were to be taught in Chinese, as Student H elaborated, he would probably fail to understand and master the business knowledge.

Likewise, the important role the discipline content played in acquiring academic language literacy was overlooked in the language-based programme, yet the students' performances on Bus. tests appeared to be discouraging too. Briton, Snow & Wesche (2003) pointed out this kind of theme-based language programme, due to its dependence on the responsibility of language instructions, would have the danger of undermining disciplinary knowledge integrity. As explained by Student D and G in the interview, they were not able to concentrate on the business content when involved in language activities, and learned 'very little' in LB, hence the programme was expected to offer more support to help students understand business knowledge. This language programme only used the business content as a vehicle for developing students' language skills, rather than promoting disciplinary knowledge learning (Stoller, 2002).

Those time- and energy-consuming language activities, according to Student D and G's reflections on the programme, in spite of success in boosting students' morale with interesting topics in the beginning, appeared to be disconnected to the disciplinary requirement (Iancu, 2002). Cummins (1984) elucidated that effective language learning needs to be highly contexualised and cognitively demanding, and LB's performances on Bus. in this study implied that the independent skills-based language programme appeared to be not effective in terms of improving students' disciplinary knowledge.

5.2.3 The comparison of students' performance on problem-solving skills tests

TB, emphasising the development of critical and analytical thinking to promote problem-solving skills in relevant business areas, were expected to perform better on PS tests than LB and DB. As shown in *Table 4.1*, the significant difference in students' learning outcomes of PS measured by post-tests was found between TB (M = 61.10, SD = 12.18) and LB (M = 52.61, SD = 12.18), but not found between TB and DB (M = 54.94, SD = 10.24). Nevertheless, the respondents from TB appeared to hold more positive attitudes towards the improvement of diverse academic abilities in the interview.

The students in TB received a series of cognitively progressive TIs to help them develop and practice a wide range of academic expertise such as identifying issues in problem situations, seeking likely alternatives for actions, synthesising the information from the documentation to 'make decisions, predict outcomes and think critically and creatively' (Esteban & Cañado, 2004 : 157). The fulfilment of these academic problem-solving skills were realised by collaboratively accomplishing classroom tasks which required students active, responsible, independent and reflective engagement.

However, there arose some problems when learning responsibilities were handed over to students in TB, according to the interviews with the students from this group. For example, Student F pointed out that some students did not work hard because 'they were not very interested in these tasks', or they were not able to follow the instructions closely. Student I, in the interview, ascribed her limited engagement in group tasks to her introvert personality and avoidance of responsibility, and she was disappointed at her performance on PS items which required numerical skills. These perceptions resonated with one of the drawbacks of the case study method pinpointed by Esteban & Cañado (2004), i.e. that it was difficult to control and assess students' personal contribution and effort they made during completing collaborative tasks. For example, some students' positive motivations faded and they started to make

gossip in the group discussion when the programme proceeded, according to Student F from TB. Besides, both of these respondents considered a lack of relevant business expertise and insufficient support on academic language skills as two major barriers to deal with the classroom activities, as the teacher no longer provided right answers and solutions.

Although the teachers in TB could be regarded as 'language consultants, mediators in the groups' discussion, moderators, and ''instigators'' of the debate' (Esteban & Cañado, 2004: 153), Chamot and O'Malley's (1996) five-stage cycle of CALLA and Stoller's (2002) six T's approach both iterated the modeling-coaching-scaffolding-feedback process in the CBI classroom. For instance, Student I expected the teacher spend more time helping them master business knowledge, which echoed Stoller's (2002) emphasis on the teacher's feedback on students' mastery of disciplinary knowledge after completion of tasks, because those answers without in-depth understanding to the classroom business tasks may not meet the dual purposes of CBI programmes.

By contrast, students in LB, did not perform as successfully as those in TB did on PS items in the tests, though they acquired many academic language learning strategies and obtained a number of opportunities to practice language skills. For example, two respondents from LB pointed out that they 'did not learn how to [resolve] some business cases' and looked forward to developing academic problem solving-skills in business subjects through 'interesting activities'. Simply following LIs, students in LB were less likely to competently tackle some finance questions with comprehensive academic abilities such as numerical skills. Business English, which had been regarded as a branch of ESP for long, aimed to centre on the knowledge of language, rather than what the relevant knowledge is in the first instance (Zhang, 2007). He further concluded that, business English should be developed beyond the grammar and discourse of business language and offer a platform for students to understand and practice academic business expertise in a collaborative and communicative manner.

Likewise, the students in DB appeared to have the difficulty in following some business models and cases in the classroom and applying these theories to problem-solving and extracting information from diagrams and charts (Flowerdew, 1991; Snow, 1993), because they were not given sufficient chances to practice these skills, according to Student H. For instance, in the lesson on 'Age Dependence Theory', the teacher presented a set of notations and formulas to demonstrate the propositions in theories of the liability of newness, adolescence, senescence, and obsolescence. In comparison, the students in TB were required to translate these abstract formulas into textual arguments based on the individual readings and group discussions. Therefore, TB's performance on the relevant PS items was supposed to benefit from the leaner cognitive autonomy (Stoller, 2002) developed in the classroom, though the significant difference between these two groups were not found.

5.2.4 The comparison of students' overall academic performance

As can be seen from *Table 4.1*, the students' mean scores of Lang., Bus., and PS in TB appeared to be higher than those in LB and DB, measured by eight post tests, though the significant differences were not detected in all statistical pairwise comparisons. However, combining students' academic performances on three types of items together, TB (M = 62.40, SD = 9.89) performed significantly better than LB (M = 52.61, SD = 10.47) and DB (M = 54.94, SD = 10.24) on the overall academic attainment (see *Acad.* in *Table 4.1*), while the difference between LB and DB was not statistically significant.

TB benefited from the leaner-centred and task-based instructional strategy and exhibited more successful learning outcomes of multiple academic literacies relative to the other two groups following LIs or DIs, especially in terms of business knowledge and abilities to solve business problems. With regard to students' improvement on academic language proficiency, as discussed above, three CBI methods investigated in this study seemed to not exert significant differences, partly

because it was less likely to see substantial effects on language skills with eight-week interventions, according to Student E in the interview. In fact, it is difficult to determine the significant improvement of students' academic attainment during short period of time (Klee and Tedick, 1997). Therefore, as argued by Dudley-Evans & St John (1998: 210), the task-based method such as case study instruction may have an increasingly obvious effect after a period of time. Besides, the qualitative interview data revealed that the students from TB appeared to hold more positive attitudes toward this CBI programme than those from LB and DB. In comparison with the other two groups, TB was reported to have greater motivation, confidence, enjoyment, classroom support, and satisfaction with performances on the post-tests. By contrast, the students from LB and DB, due to the overreliance on single instructions, tended to elaborate more negatives of the programme they were involved in.

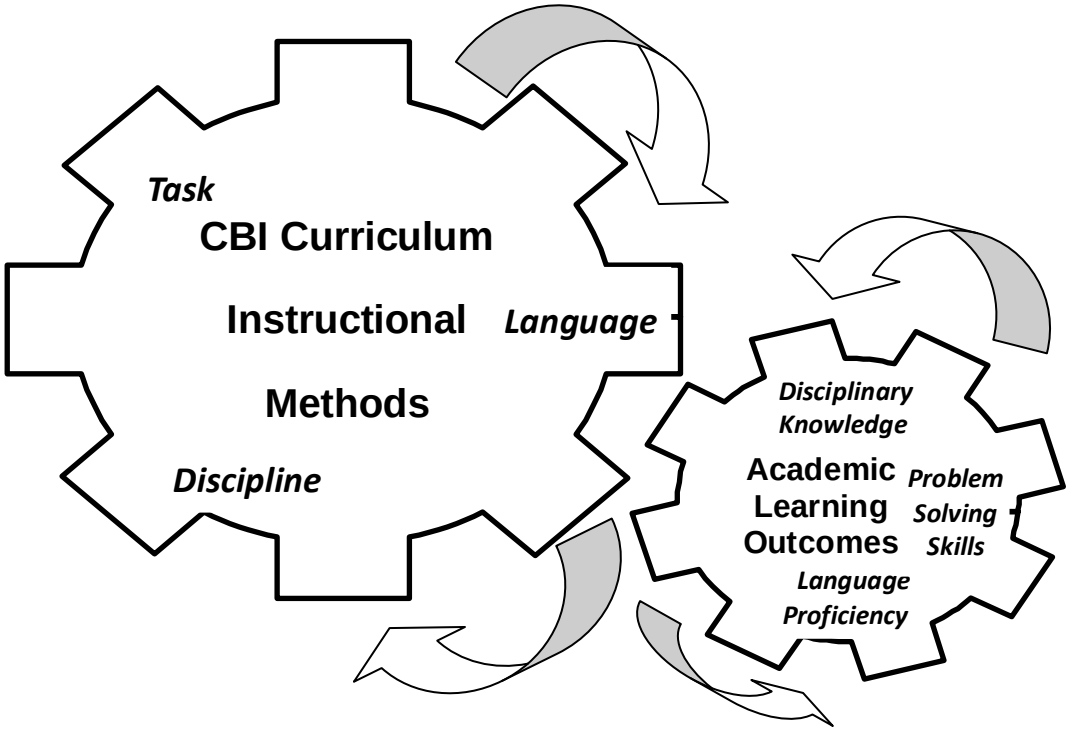
In addition, the respondents in this study all believed that the multiple hybrid tests used in the programme were more applicable than those traditional proficiency-based language tests, because the items included in the paper were closely related to the academic cognitive and study skills they had learned in the lesson, rather than global listening, speaking reading and writing skills (Stryker & Leaver, 1997). Exploring the possibility of examining students' attainments of diverse academic literacies in standard performance tests may meet the multiple demands of academic abilities required in international higher educational contexts. Besides, these weekly quizzes, also advocated by Iancu (2002), were likely to help students lighten the heavy burden and pressure to revise the knowledge at the end of the programme, according to Student E. As argued by Brinton, Snow and Wesche (2003), these omnibus tests implemented on a disciplinary topical base may keep students up to date in their studies and provide the teacher with immediate information about students' academic learning outcomes.

Apart from the positive feedback on the mixed-literacies tests, one of the respondents from TB expected their learning outcomes to be assessed by means of 'Assessment Centre' (a combination of methods including interviews, case study presentations, group discussions and role plays to assess candidates' work competency). Campbell & Duncan (2008) advocated that some variations of 'standards-based performance assessment' such as 'alternative assessment' (Austin Campbell, 2004) and 'educative assessment' (Wiggins, 1998) should be developed to evaluate learners' academic performances in the real life tasks. Esteban & Cañado (2004) also recommend that a wide range of qualitative methods ought to be adopted to assess students' improvement on academic skills instead of the traditional tests, because the latter was thought to lack the capacity to evaluate their performances in collaboration. However, these communicative evaluation techniques may encounter massive challenges pertinent to difficulty in administration, lack of stringency, and inconsistency of assessment criteria in practices.

5.3 The pedagogical gearing of CBI curricula

In the field of accounting and finance, the word 'gearing' is used to delineate the context in which a rotating movement of the large wheel (volume of output) leads to more-than-proportionate movement of small wheel (profit). Similarly, this study attempted to explore a 'CBI pedagogical gearing' to maximise the students' learning outcomes of multiple academic literacies (*see Figure 5.1*).

Figure 5.1 CBI Pedagogical Gearing



There are two intermeshing gearing wheels of different circumferences. The large wheel, which represents a variety of CBI frameworks with theoretical underpinnings and pedagogical applicability, aims at exploring effective classroom teaching-learning strategies to help students develop diverse academic abilities simultaneously. However, the appropriateness and effectiveness of these methodological claims need to be testified by solid empirical evidence both from interpretivist and positivist perspectives. Any pragmatic recommendations for CBI curricular models cannot be universally made only based on self-evidenced propositions or anecdotal stories. Instead, the evaluation of the effectiveness of a particular CBI programme should include the stringent assessment of the participating students' academic learning outcomes. Students' academic attainments of multiple literacies denoted as the small wheel in *Figure 5.1* are expected to improve greatly due to the application of appropriate and effective instructional methods. Nevertheless, the decision of CBI approaches is neither a static dichotomous choice nor a simple mixture of instructions. This study indicated that different CBI models appeared to develop students' comprehensive academic skills

to different extents. The key to success of CBI programmes lies in devising an efficient 'pedagogical gearing' which may facilitate effective learning with the coherent and logical configuration of classroom instructions.

5.3.1 Different curricular representations of academic knowledge

The transmission of business disciplinary knowledge and diverse relevant academic expertise through the medium of English may raise some pedagogical considerations in the CBI community. Shulman (1986) described three categories of content knowledge – subject content knowledge, pedagogical knowledge and curricular knowledge – from classroom teaching-learning perspectives. The structures of business disciplinary knowledge are composed of substantive structures and syntactic structures. Teachers are required to impart not only the basic business concepts and principles with factual information, but also the rules of disciplines for determining the validity of legitimacy of disciplinary propositions and claims.

However, delivery of this knowledge places a great demand on the ESL/EFL learners. Unlike students attending universities in their first language, these learners studying business disciplines need to comprehend subject matter knowledge with an underdeveloped language system. The probe into these complexities of disciplinary knowledge transmission in this study provided detailed insight into the interface of the different pedagogical approaches of formulating and representing the business subjects in the classroom. The three different CBI methods discussed in this study had their own forms of representation of knowledge with analogies, examples, illustrations, explanations, visuals and demonstrations. Nevertheless, there is no single form of most powerful instruction that may substantively and persuasively facilitate the development of multiple literacies to the greatest extent.

Understanding of what makes learning a discipline in a foreign language easy or difficult also required teachers to have the knowledge of students' backgrounds and preconceptions based on which different CBI programmes are delivered for the

teaching of particular business topics. A variety of instructional materials with their particular characteristics should be designed for particular teaching purposes in different academic circumstances. The language-based programme identifies students' lack in knowledge of semantics, syntax, pragmatics, functions and acquisition of language literacy as the major barrier for developing disciplinary knowledge and expertise. Consequently, the LI focus on discourse analysis, rhetorical teaching and language learning strategies in a specific disciplinary area.

Unlike those previous EAP programmes offered to EFL/ESL learners studying different university courses, the teaching materials used in this kind of language literacy programme are closely connected to students' common learning interests and focused disciplinary academic situations. Providing students with opportunities to practise discipline-related communicative skills both in spoken and written forms, and analyse the specific varieties of language use, may help them overcome language difficulties in comprehending and processing disciplinary content.

However, the pure linguistic analysis of disciplinary texts is insufficient to deal with the disciplinary concepts, procedures and conventions. Based on naturalistic first language learning experience, the discipline-based programme focuses on the presentation of systematic subject information, and assumes that learners are able to acquire the target language unconsciously. The disciplinary materials displayed in the sheltered classroom are used as the curricular instructions to present the truths of subject knowledge both in theory and practice. Contextualising language codes in the process of communicating meaningful disciplinary information may not only facilitate students' understanding and mastery of subject matter but also promote their incidental language acquisition.

This study implied that language-based programme and discipline-based programme interpret the knowledge constructions from different perspectives, deliver the content knowledge in different ways, but neither of them appeared to be fully effective to

promote the multiple academic literacies due to the overreliance on single instructions. In order to filling the gap between these two instructions, the task-based programme aims to help students construct knowledge in joint activities, based on the social-cultural theory. Students in this kind of programme were provided with a sequence of TIs and supplementary materials to accomplish some pedagogical or authentic classroom business activities in a variety of collaborative forms.

As important aspects of academic literacy that are necessary to promote diverse academic problem-solving skills, students' second language proficiency and disciplinary knowledge are likely to be developed effectively and efficiently at the same time during the accomplishment of tasks. Leading students to actively get involved in critical and analytical thinking process may enhance in-depth understanding of disciplinary knowledge and create opportunities for practicing language skills during communications. The development of multiple academic literacies in a holistic manner which emphasises cognitive and affective learning process seems to be generally successful in promoting students' learning outcomes, according to this study, because task-based instructions boost up self-motivation, self-confidence and self-autonomy.

5.3.2 From technical and practical literacy-based instructions to emancipatory task-based instructions

Grundy's (1987) theory of three cognitive interests – technical, practical and emancipatory – is likely to provide further pedagogical answers to the findings of this comparison study of CBI programmes. According to her, the goal of these cognitive interests is to identify how individuals seek pleasure through rationality with different levels of motivation. The technical interest of the CBI curricula refers to those predetermined learning objectives of multiple literacies, and advocates predicting and objectifying learning environment based on observation and experimentation. The practical interest suggests understanding and acquiring knowledge in social constructions and during seeking what is 'good'. Furthermore,

the emancipatory interest emphasises the importance of individuals' empowerment and autonomy in teaching-learning activities besides the social construction of knowledge. Some curricular areas that characterise differences between curricula, as suggested by Grundy (1987), may offer further pedagogical recommendations for the development of task-based CBI programmes. As summarised by Bowen (1994: 457), these dimensions include 'the goal of the curriculum, power relationships within the curriculum, the nature of the curricular plan, implementation of the plan, nature of the content knowledge, and intended roles of evaluation in the curriculum'.

5.3.2.1 The development of CBI curricular objectives

A large number of CBI programmes are differentiated from one another according to their various teaching-learning purposes. If a CBI curriculum is guided by technical interests, the curricular goals are normally predetermined and specified by an outside agent instead of teachers and students. Many CBI researchers and practitioners insisted that detailed objectives should be clearly defined in the curricular syllabus, whether for the purpose of promoting language proficiency, developing disciplinary knowledge, or both of them. Once objectives are defined, the specification of the curricular goals directs the content of teaching materials, the pedagogical steps the instructor will take, the possible responses students will give and other teaching details in the classroom. As a result, students' learning outcomes can be predictable and guaranteed. The practical interest requires CBI practitioners to interpret the curricular goals based on their values, and choose teaching actions guided by personal judgment. In this process, teachers establish the curricular goals on their understandings of the 'right' rationale and some input from students.

In both language-based programmes and discipline-based programmes, it can be seen that teaching objectives of developing a particular academic literacy are clearly specified, teaching materials are selected and designed strictly around these goals, and teaching activities are organised in order to facilitate acquisition of specific disciplinary knowledge or language skills. All of these teaching decisions are made

by teachers based on some levels of students' needs analysis. CBI materials developers as well as instructors try to identify students' learning barriers from different perspectives and tailor the programmes for different purposes. However, due to the complexity of interface of multiple literacies, as investigated in this study, students' academic achievements in these groups under single instructions appear to be not as successful as expected.

By contrast, the curriculum informed by the emancipatory interest emphasises the process of determining the course purposes in which the class, teachers and students jointly look for the proper manners of knowledge construction by making obvious those teaching-learning ideologies. Following this interest, task-based programmes provide a series of instructions to empower individual to seek and negotiate diverse learning objectives. Instead of elaborating the specific aspects of academic literacy, TIs aim to facilitate students learning autonomy during accomplishing classroom activities in collaboration. Although these step-by-step instructions are designed prior to teaching sessions, they can be regarded as the stimuli to boost the emancipatory choices and decisions of curricular objectives in the interests of teachers as well as students.

5.3.2.2 The power relationship within different CBI programmes

The power relationships between teachers and students in CBI classrooms can be distinguished from one another based on the different operating cognitive interests. From the technical interest perspective, the curriculum developers outside the CBI classroom have the power to make changes to curricular goals and plans. The instructors in the language-based or discipline-based programme are responsible for translating these goals and plans into teaching actions. Besides, they also take into account the practical interest and make some changes to the lesson in the light of specific teaching-learning contexts. However, the students in these two kinds of programmes just follow the instructions to either practice language literacy or receive disciplinary information. Although these students are empowered to make personal

contributions to the teaching-learning process, their initiatives and responses to the instructions are constrained to the detailed specific goals. In other words, those instructions on semantic, syntactic, pragmatic and metalinguistic knowledge are less likely to provide opportunities for students to develop other aspects of academic literacies. Likewise, it is also difficult for students to follow the instructions on disciplinary knowledge to realise the particular language development aims.

In comparison, in task-based programmes, influenced by the emancipatory interest, the teacher and students share the power and responsibility in the teaching-learning process. Although the teacher prepares a set of TIs for students to follow, the students in these programmes are empowered to make a decision on how to deal with the assigned materials. They read the texts, overcome the language barriers, comprehend the information, exchange the opinions, and collaborate with their partners to jointly construct the knowledge in written or spoken forms. However, the transformation of teaching-learning power does not necessarily mean that the teacher in task-based programmes has to take a back seat and just play a role of activity organiser. The debate over the CBI teachers' necessary knowledge centred on to what extent they ought to have the specialist skills to handle both ESL and disciplinary knowledge. It is clear that the learner-centred approach in the emancipatory interest does not exclude the teacher's role in facilitating, assisting and joining students to accomplish classroom tasks.

On the contrary, the teacher's ideological reflection on the materials and the ways of dealing with these materials is the key to success of task-based programmes. Those novice learners with limited language literacy competence and disciplinary knowledge are unlikely to substantively benefit from the TIs without teachers' proper feed-in and feedback. In this sense, the more comprehensive knowledge of ESL and the subject matter the task instructors has, the greater effect the task-based programme may generate.

5.3.2.3 CBI curricular plans and their implementations

The technical interest of the curriculum suggests that the plan is developed outside of the classroom setting into texts and implemented in strict accordance with the stipulated formulation of the scope, the sequence of teaching content as well as instructional and evaluation instruments. In both language-based and discipline-based programmes, the detailed teaching plans are set in advance and brought into the classroom with a number of sub-objectives in terms of a wider range of language or disciplinary components. By contrast, the plans in task-based programmes normally explicate the ultimate holistic aims of the task, rather than those specific literacy-oriented targets, though these TIs are developed by the teacher prior to the lesson. Consequently, the teacher in the task-based classroom has the greater flexibility to make substantial changes to the plans than those teachers in single literacy-oriented classrooms have.

From the practical interest perspective, the students' concerns need to be addressed and taken into account during planning and implementation. Influenced by this interest, language-based programmes are designed based on students' disciplinary needs and emphasise the interactive process in the classroom. Likewise, when students' limited language proficiency is considered in discipline-based courses, some changes are likely to be made according to their in-class responses. In addition, the pre-programme analysis of students learning needs, barriers and expectations also provides the chances for teachers to translate target students' practical interest into the planning of programmes. By contrast, despite reflecting technical and practical interests *pro forma*, the instructions used in task-based programmes implicitly offer the students more freedom and equality of participation in formulating and implementing the plan. This emancipatory interest emphasises the teacher and students' reciprocal responsibility for identifying what aspects of academic literacy need to learn, deciding how to construct knowledge and modifying teaching-learning procedures with consensus.

5.3.2.4 CBI curricular knowledge

The systematic disciplinary knowledge and comprehensive language knowledge to be learned in CBI programmes are considered to be externally existent outside of the classroom from the perspective of technical interest. Both of these two sets of knowledge are known by those experts such as syllabus decision makers, materials developers, language instructors and discipline teachers, who carve them up into the concrete classroom plans. Language-based and discipline-based programmes derived from this technical interest also lay emphasis on the knowledge construction by participants' classroom interactions with other people and curricular materials. However, these interactions informed by the practical knowledge interests only take place during the social construction of disciplinary or language knowledge, rather than in the process of developing critical consciousness about cultural and extracultural aspects of knowledge itself.

By contrast, task-based programmes with knowledge interests in emancipation aim to promote students independent reasoning and learning. The students in these programmes are independent of external ideological forces which constrain the construction of knowledge. They organise, interpret, analyse and synthesise the information under a sequence of TIs. They comprehend, memorise and acquire the knowledge independently and critically. They develop interpersonal, teamwork and managerial skills in collaboration. Besides, the teacher also jointly contribute to the construction of knowledge by provoking students' self-motivation and self-autonomy, offering supports to help students overcome learning barriers, and providing feedback to exchange ideas about solutions to the task with students. Some will probably argue that TIs are not different from those literacy-based instructions, because they are all specified prior to the lesson and students are all required to follow them in the classroom.

However, this is not the case. Under LIs or DIs, the students tend to be faithful 'epigones' if not passive receivers of knowledge and they tackle the information

mechanistically to practice specific language skills or master a particular disciplinary concept. In general, these two instructions may constrain students' choices of ways to deal with the knowledge and lead them to over-rely on teachers' didactic teaching. The findings in this study also indicated that the effects of the language-based programme and discipline-base programmes on developing students' multiple academic literacies appeared to be limited because of their drawbacks. In comparison, TIs, instead of explicating specific aspects of knowledge that needs to be developed, allow the students to have freedom to decide what kinds of academic skills they should develop and use to accomplish the classroom task. In this comparison study, the most successful overall academic performance on the tests and the most positive attitudes toward the programme found in TB implied that students were likely to benefit from TIs which effectively promote the simultaneous development of multiple academic literacies. Therefore, TIs are distinguished from LIs and DIs in the ways of construction of knowledge influenced by different cognitive interests.

5.3.2.5 The assessment of the CBI curriculum: from 'product' to 'process'

Those commercial tests in the market place and language-skills tests for general purposes are designed by the agents outside the CBI curriculum, who are not able to access the specific learning situation. The evaluation of CBI curriculum ought to be determined by teachers and students within the culture, because they are the only people capable of judging how effective and efficient the programme develops the learners towards goal. The curricular technical interest suggests that the purpose of evaluation is to determine how close the products of the curriculum comply with the predetermined objectives. The effectiveness of the CBI programmes then will be judged based on to what extent the actual learning outcomes match the intention of the course. Take the assessment of different aspects of academic literacy in this study as an example. The test on Lang. aims to measure students' language skills in the language programme. The test on Bus. intends to measure students' mastery of disciplinary knowledge in the discipline programme. The test on PS aims at measuring students' diverse academic skills to solve problems in the task programme.

Notwithstanding, the transferable effects between different aspects of academic literacy detected in this study implied that, the teaching-learning act is a complex process, and developing multiple literacies for a particular discipline through a foreign language cannot be as simple as making different parts of a machine and then putting them together. Consequently, the assessment of the CBI curriculum is expected to not only focus on the academic knowledge that learners construct, but also their autonomy, responsibility and interaction in the teaching-learning process. These practical and emancipatory concerns of the curricular evaluation were also raised by the participants from TB in this study, who suggested assessing their multiple academic skills during the accomplishment of tasks in the classroom.

5.3.3 Avoid a negative pedagogical gearing

As shown in *Figure 5.1*, a positive pedagogical gearing may optimise the incorporation of multiple academic literacies into one curriculum and promote effective learning. TIs as advocated by the ESL/EFL community are likely to increase the possibilities of generating more successful academic learning outcomes. However, a successful task-based programme needs to be established based on the careful design prior to the teaching, the effective classroom management during the implementation and the reliable assessment instrument. This study implied that simply emphasising TIs without appropriate and sufficient instructions on language and discipline was likely to have a limited effect on students' academic learning outcomes. In other words, a lack of full consideration of students' multiple learning demands may lead the wheel of the task-based CBI methods to slow down or even to cease. As a result, this simplistic choice of approaches will cause a limited amount of rotating motion in the small wheel of the learning attainment.

Furthermore, using TIs in the CBI classroom can be a 'double-edged sword'. The task-based programme may have difficulties in ensuring individuals' equal contributions and managing the group dynamics, as some students pointed out. The danger of this kind of task-based programme lies in its vulnerability to intractable and complex challenges during the implementation. Consequently, the large wheel in

Figure 5.1 is likely to rotate in the opposite direction, which may cause a more negative effect on students' academic achievement. In addition, if a task-based programme tends to simply turning language and disciplinary knowledge into the classroom practices rather than focusing on processes of discovery and problem-solving, the 'process' teaching approach is likely to be technologised.

In fact, the LI delivered in this study was claimed to be a 'process' but not a 'product' approach in the ESL/EFL community, because the language learning process is defined as the development of a set of language skills for a specific profession or discipline. Once students acquire these language skills, they are thought to have accomplished the learning process. As a result, this learning process has become the 'product' and students are not required to make use of these skills to make sense of the disciplinary knowledge. Similarly, the DI tends to be a clear 'product' approach because it presents disciplinary knowledge in a foreign language to serve production purposes. As an interactive 'process' approach, the TI described in this study is worth encouraging because it places 'deliberation, judgment and meaning-making as central' and empowers 'groups of people to engage in autonomous action'(Grundy, 1987).

Chapter VI Conclusion

In the context of globalisation and internationalisation, the prospering cross-disciplinary development and flourishing transnational resources exchanges in higher education pose new challenges for diversification of academic literacies. English, as a 'lingua franca' in professional and academic communication between the people from different cultures and countries, needs to be studied in pace with these trends and changes. As an increasing number of students pursuing university programmes in foreign countries through the medium of English, traditional language skills are required to develop into academic discourses embedded in a variety of disciplines. The soaring demand for business personnel of global economy and international trade in developing countries such as China provokes the prevalence of the business education at business schools in English speaking countries such as UK.

Business English has been developed over the last fifty years in the overall ESP context, with its focus moving from specialised business vocabulary, business communication skills, formulaic 'gambits' language, to case study method. Teaching Business English at tertiary level in China, in response to the country's social and economic progress as well as its increasing active participation in international cooperation, has thrived in the last two decades. However, the separation of business courses from language skills courses, and the isolation of business knowledge from language proficiency in the current Chinese educational testing system are less likely to accommodate the pedagogical development of teaching business as academic subjects in English. CBI, as one of the essential pedagogical movements in the ESL/ EFL area, provides the possibility of integrating business disciplines and language learning into one curriculum.

CBI curricular models have developed from three prototype programmes on the continuum to those learner-centred and task-based triarchical frameworks. Although these CBI variations have their own theoretical underpinnings, curricular emphases, teaching purposes and focus of evaluation, the promotion of developing diverse academic literacies including language proficiency, disciplinary expertise and problem-solving skills has become a common goal of most CBI programmes in higher education. Those EAP curricula which are widely used as pre-sessional or in-sessional courses in universities to help non-native students develop language-based academic literacy for formal university degree studies, emphasise the 'academic core' based on the generalised discourse register across disciplines. In these courses, linguistic analysis of written texts, metalingusitics, and language learning strategies are believed to be essential to developing multiple academic abilities. By contrast, some immersion programmes using the sheltered model such as those university degree courses offered to international students with the instructional language of English, highlights the importance of mastery of disciplinary knowledge. Language learning is regarded as a process of subconscious and spontaneous acquisition during cognitive understandings of content materials. Furthermore, the latest evolution of CBI curricular models advocates improving students' multiple academic literacies by encouraging them to accomplish a series of communicative and collaborative classroom tasks.

It is claimed that task-based approaches such as case study method for business English teaching fill the gap between EFL programmes and immersion programmes by facilitating students' self-autonomy and self-motivation to develop critical and analytical thinking, abilities to synthesise information to solve problems, as well as interpersonal and managerial skills. This study with an eight-week pre-post quasi-experimental design and follow-up students' interviews, examined the effectiveness of the aforementioned three CBI methods delivered to 105 EFL students studying business subjects and English at postsecondary levels in China. Conclusions were derived from two sources. Statistical analysis (Correlation test and

MANOVA) examined differences in pre and post-test performance across the three methods. In addition, TCA examined students' experiences related to their academic performance on the hybrid post-tests.

The evidence indicated that the TI appeared to be a more effective CBI method to develop multiple academic literacies for the EFL students of business studies in comparison with the LI and the DI. As can be seen from the statistical analysis of students' post-tests results, these three different CBI methods may have significantly different effects on students' academic learning outcomes. The TI appeared to better improve students' understanding and memorising business knowledge, and better develop a variety of problem-solving skills such as analysing business cases based on the details provided, critiquing different opinions supported by facts, calculating arithmetic problems with numerical abilities, though the other two kinds of CBI methods also have positive effects on the development of multiple academic literacies.

In addition, although there appeared to be no significant differences in academic language improvement between these three programmes. The students in the task-based programme still performed better than those in the other two programmes on the overall academic achievement. TCA of the students' perceptions of their learning experience further revealed that students considered the TI to be the most interesting and effective teaching method to promote multiple academic literacies simultaneously, though it was difficult to manage the classroom activities during the implementation at times. By contrast, students believed that the TI helped them improve four academic English skills, but made less contribution to understanding in-depth disciplinary knowledge and developing diverse academic problem-solving skills. Similarly, in the discipline-based programme, students attributed the difficulty in comprehending disciplinary knowledge to language barriers and lack of opportunities to apply the knowledge to practice. However, there was a consensus among the respondents participating in different programmes that CBI teaching

should integrate development of disciplinary knowledge, language literacy and diverse academic problem-solving skills into the same classroom. In addition, the students held positive attitudes towards the multiple hybrid tests used in this study due to their applicability in assessing students' comprehensive academic literacies around specific disciplinary topics.

This journey provided me with an opportunity to look at my role of a Business English teacher in higher education from comprehensive perspectives. Some answers to the question in the analogy of three football coaches presented at the beginning of this journey appeared to arise as follows. As an English teacher, compared to the first football coach who emphasises players' psychomotor skills, the instructor should realise that specific training of these abilities is necessary, but not sufficient, however, to be successful in the game. As a discipline teacher, compared to the second football coach who stresses the techniques for playing football, the instructor needs to be aware that the development of these techniques is helpful for players to win the game but this is subject to their psychomotor abilities. As a task-based CBI programme instructor, compared to the third football coach, s/he analyses the multiple skills a competent player should have, designs a series of tasks to develop players' emancipatory interests, and advises the implementation during participation in these activities with his/her comprehensive knowledge. The football players will probably like the third coach best and be the most successful team, winning a number of games on the pitch.

Chapter VII Evaluation of the study

This empirical inquiry into a CBI business programme under three different classroom instructions explored the possibility of assessing students' multiple literacies with the teacher-generated standardised performance tests. This study also investigated the interactions between the different aspects of academic literacy developed in these three types of CBI courses. Besides, the effectiveness of CBI programmes was examined by comparing students' academic learning outcomes in three groups with different teaching approaches. Finally, a probe into teaching-learning context such as students' academic needs and learning experiences was undertaken to offer interpretations and inferences for the course assessment.

This study offered an example of in-situ research with mixed methods for Business English and CBI communities, by comprehensively revealing transferability, interactions, and conflicts between multiple literacies, closely looking at learners' performance and experiences in specific learning situations, and tentatively examining the effectiveness of different language learning theories. This study revisited the CBI models developed in the past decade and investigated their components, complexity, and effectiveness in three CBI programmes for business studies. The pedagogical implication of this study also corresponded to the situated cognition theory that development of knowledge and acquisition of expertise are inseparable from context, activity, people, culture, and language. This study supported the claims of situativity by presenting some evidence in terms of effective leaning occurring in concrete, complex, and collective socio-cultural activities, in which language instructions should be given to a specific disciplinary topic rather than a generalised discourse context. Unveiling the difficulties in implementing task-based instructions and the limitations of single literacy-based instructions, this study advocated a shift from technical and practical literacy-based instructions to emancipatory task-based instructions in CBI classrooms. By comparing curricular

objectives, power relationship, plans and implementations, and content knowledge and assessment, this study also sent a warning signal to extravagantly using task-based instructions without careful considerations, which may lead to a 'negative pedagogical gearing'.

Several practical recommendations can be offered based on the findings of this comparison study. Firstly, schools of foreign languages and language centres in universities may strengthen collaboration with other disciplinary departments to offer some task-based CBI programmes for specific disciplines. Secondly, academic language literacy should be acquired in relevant disciplinary contexts with simultaneous in-depth development of disciplinary knowledge and expertise. Thirdly, multiple academic literacies with appropriate sequence and balance need to be incorporated into the CBI curriculum to help students develop comprehensive academic abilities in their future academic studies. Fourthly, teachers' supports in language literacy and disciplinary knowledge and modeling-coaching-scaffolding-feedback classroom processes should not be overlooked in task-based programmes, Fifthly, task instructors should encourage students to enhance self-confidence, self-motivation and self-autonomy to explore and construct the disciplinary world in collaboration, rather than organising some classroom activities to practice single academic literacy. CBI teachers are expected to possess academic competency in both language and discipline teaching, develop a number of holistic collaborative and interactive classroom tasks which embody multiple teaching purposes for a discipline, and design some hybrid tests based on a specific disciplinary topic.

Although some positive evidence was found in this study in favour of using TIs in the CBI classroom, this study also has some limitations including the possible bias caused by the researcher's multiple roles, the differences in motivation and self-efficacy between groups due to uncontrollable hidden factors, the vulnerability of repeated test design, the instant snapshot of interviewee's reflections without

longitudinal consecutive tracking, and the lack of clear-cut borderline between different aspects of academic literacy. Among these shortcomings, researcher bias seemed to become the most protruding problem because this was an individual doctoral study. The researcher designed the teaching materials, taught the students, wrote and marked the test papers, and interviewed the participants for all three groups with different instructions. His multiple roles might lead him to seek anticipated evidence to support or reject the hypotheses.

If this comparison study were to be conducted repeatedly, several improvements could be made to surmount the aforementioned drawbacks. This study could be a project carried out by a research team in collaboration with some educational institutions for a long time. The research team members could take different specific responsibilities in order to circumvent researcher bias. For example, three different programmes could be delivered by three different teachers. Teachers or specialists in this area could be invited to read and comment on the teaching materials, test papers, and interview questions to further ensure the reliability and validity of the teaching instructions and assessment procedures. A second marker could be added to increase inter-rater reliability. The interviewer could not be involved in teaching activities, and the interviews could be conducted with the same students staying in the project from the beginning to the end in order to compare their perceptions of learning experiences at different stages.

In addition, more evidence is needed to prove the effectiveness of task-based instructions on students' development of academic language literacy. Research could evaluate students' academic learning outcomes during the implementation of tasks, in which a wide range of evaluative components needs to be further identified and objectified. For example, some evaluative components can be included to investigate students' teamwork spirit, managerial abilities, decision-making skills and the sense of collaboration. The in-depth exploration of details during students' construction of knowledge in CBI courses may help researchers and practitioners better understand

how to achieve the goal of developing multiple academic literacies more successfully. More empirical studies of the effectiveness of task-based CBI programmes for other disciplines would be useful to further explore the interactions between all kinds of multiple literacies and students learning experiences in different disciplinary contexts at tertiary levels.

Appendix I

ASSENT TO PARTICIPATE IN RESEARCH

Title of Project: *Language, Discipline or Task? A Comparison Study of the Effectiveness of Different Methods for Delivering Content-based Instructions to EFL students of Business Studies*

Purpose of Research: *You are invited to take part in a research because we are trying to seek some empirical evidence to compare the effectiveness of delivering different CBI programmes on the same business topics.*

Procedures: *If you agree to be in this study, you will be likely to be selected to join in the semi-structured interviews throughout the research; you are expected to physically attend a series of CBI lectures (four contact hours a week, eight weeks) on a wide range of business topics; you are also to receive one single pre-test before the commence of the programmes and eight separate tests throughout the programmes; the interviews and the tests results will be recorded for future data analysis.*

Risks: *You will give up some spare time to contribute to this study. You will suffer from commute from your accommodation to the school. The study may bring about some extra workloads on top of your school academic modules and hence causing stress on you.*

Benefits: *This study may help you to enhance English language proficiency and increase business knowledge in a well-organised programme.*

Confidentiality: *All prospective participatory students will be given written consent forms to their commitment to participate after a clear introduction of the proposed study. All the data collected from your tests and interviews will be kept anonymous and confidential, and any reference to your personal cases in the thesis will be presented in code. The results of your evaluation and interviews are used for the research purpose only and will be destroyed as soon as the research finishes. You have the rights to request for their individual test results. The tests results will be definitely irrelevant to your academic year school record. The findings of the research will be informed to all of you and the School of Foreign Language at Changshu Institute of Technology.*

Person to Contact: *You can ask any questions in relation to this study. If you have a question later that you did not think of now, you can email me at any time. My e-mail address is xi.tang@durham.ac.uk.*

Alternative Procedures and Voluntary Participation: *If you do not want to be in this research, you do not have to participate. Bear in mind that being in this programme is up to you and no one will be upset if you do not want to participate or even if you change your mind later. You are free to withdraw your consent at any time without giving any reason for your decision.*

Consent: *Signing your name at the bottom means that you agree to be in this study and you will be given a copy of this form after you have signed.*

Signature of Subject …… Date……

Name in block capitals……

Appendix II

Pretest

Part A. Listening (Adapted from BBC Website)

http://www.bbc.co.uk/worldservice/learningenglish/radio/specials/1630_144_6min_backup/page23.shtml

1. What topic are they talking about?
   A. stock market B. housing market C. futures market D. car market
2. They are talking about this specific economic situation in _____.
   A. U.S. B. China C. Britain D. Brazil
3. I have a balloon here, and as I start blowing it gets bigger, and bigger, and bigger but it can't go on getting bigger forever, at some point it becomes too big and it bursts. In this sentence, the 'balloon' refers to___?
   A. salary B. economy C. price of property D. houses
4. Complete this sentence: 'prices have got so high, they couldn't get any higher and the _____.'
   A. bubble has burst B. glass has burst
   C. balloon has burst D. glass has broken
5. 'Negative equity' means_____.
   A. your property is worth less than the money you paid for it
   B. your property is worth more than the money you paid for it
   C. your property is equal to the money you paid for it
   D. your property has zero value.
6. Someone who hasn't owned a property before and so therefore is buying a house for the first time is called_____.
   A. a first-time owner B. a first-time buyer
   C. a new host D. a new buyer
7. In terms of this issue, Jackie _____ in London.
   A. buys a house B. rents a house
   C. owns a house D. sells a house
8. If you already own a property but are planning to sell it and buy a new better one,
   you are moving up the_____.
   A. property ladder B. property steps C. ownership steps D. ownership stairs
9. _____ is a recent term describing the situation when it becomes difficult to borrow money at low interest rates.
   A. credit bunch B. credit crunch C. credit munch D. credit punch
10. When did the term described in item 6 was first referred on the BBC website?
    A. January 2007 B. June 2007 C. July 2007 D. December 2007

Part B. Reading (adapted from Cambridge Business English Sample Tasks)
Passage 1

The Effective Leader

http://www.cambridgeesol.org/teach/bec/bec_vantage/reading/data/reading_part3.pdf

From workplace surveys I have found that most people want to be – and feel they could be – more effective leaders. Certainly they want their leaders to be more effective. But what do we mean by effective leadership in business? It would appear a simple question. Unfortunately, effectiveness is more easily recognisable when it is absent. Leaders who attempt to use business jargon and try out the latest ideas are too often seen as figures of fun. Whilst people frequently agree on what ineffective leadership is, clearly knowing what not to do is hardly helpful in practice.

Huge amounts of research have been done on this very wide subject. When you look at leadership in different ways, you see different things. While descriptions of leadership are all different, they are all true – and this is where disagreement arises. However, leadership is specific to a given context. The effectiveness of your actions is assessed in relation to the context and to the conditions under which you took them.

For a magazine article I wrote recently, I interviewed a publishing executive, author of several well-known publications, about what effective leadership is. It was significant that, at first, he did not mention his own company. He talked at length about what was happening in the industry – the mergers, takeovers and global nature of the business. Before he was able to describe his own objectives for the new publishing organisation he was setting up, he had to see a clear fit between these proposals and the larger situation outside. Obvious? Of course. But I have lost count of the number of leaders I have coached who believed that their ideas were valid whatever the situation.

At this point I should also mention another example, that of a finance director whose plan of action was not well received. The company he had joined had grown steadily for twenty years, serving clients who were in the main distrustful of any product that was too revolutionary. The finance director saw potential challenges from competitors and wanted his organisation to move with the times. Unfortunately, most staff below him were unwilling to change. I concluded that although there were certainly some personal skills he could improve upon, what he most needed to do was to communicate effectively with his subordinates, so that they all felt at ease with his different approach.

Some effective leaders believe they can control uncertainty because they know what the organization should be doing and how to do it. Within the organisation itself, expertise is usually greatly valued, and executives are expected, as they rise within the system, to know more than those beneath them and, therefore, to manage the operation. A good example of this would be a firm of accountants I visited. Their

business was built on selling reliable expertise to the client, who naturally wants uncertainty to be something only other companies have to face. Within this firm, giving the right answer was greatly valued, and mistakes were clearly to be avoided.

I am particularly interested in what aims leaders have and what their role should be in helping the organisation to achieve its strategic aims. Some leaders are highly ineffective when the aim doesn't fit with the need, such as the manufacturing manager who was encouraged by her bosses to make revolutionary changes. She did, and was very successful. However, when she moved to a different part of the business, she carried on her programme of change. Unfortunately, this part of the business had already suffered badly from two mismanaged attempts at change. My point is that what her people needed at that moment was a steady hand, not further changes – she should have recognised that. The outcome was that within six months staff were calling for her registration.

11. In the first paragraph, the writer says that poor leaders
A. do not want to listen to criticism.
B. do not deserve to be taken seriously.
C. are easier to identify than good ones.
D. are more widespread than people think.

12. Why does the writer believe there is disagreement about what effective leadership is?
A. Definitions of successful leadership vary according to the situation.
B. There are few examples of outstanding leaders available to study.
C. Leaders are unable to give clear descriptions of their qualities.
D. The results of research on the subject have concluded little.

13. The publishing executive's priorities for leadership focused on
A. significant and long-term aims.
B. internal organisational aspects.
C. professional skills and abilities.
D. overall business contexts.

14. According to the writer, the finance director was unsuccessful because
A. staff were uncomfortable with his style.
B. existing clients were suspicious of change.
C. competitors had a more dynamic approach.
D. colleagues gave little support to his ideas.
15. Staff at the accountancy firm who were promoted were required to
A. correct mistakes.
B. have a high level of knowledge.
C. maintain discipline within the organisation.
D. advise clients on responding to uncertainty.

16. The example of the manufacturing manager is given to emphasise that
A. managers need support from their employers.
B. leaders should not be afraid of being unpopular.
C. effective leaders must be sensitive to staff needs.
D. managers do not always understand the attitudes of staff.

Passage 2
http://www.cambridgeesol.org/teach/bec/bec_vantage/reading/data/reading_part1.pdf

Changes in Performance Feedback

A

In the past, feedback about your performance used to mean a quiet chat with the boss. But now 360-degree feedback – the system where employees are also given feedback from peers and from the people they manage – is taking root in corporate culture. The system is characterised by greater participation and has grown out of the desire of companies to create more open working environments where people work better together and ideas and opinions are exchanged between teams and across levels of seniority.

B

PCs linked to the company IT network are set to become the feedback machines. Many firms introducing 360-degree feedback are using Personal Development Planner software. Feedback on an individual, which is based on a questionnaire relating to attributes needed for that person's role in the company, is collected using this electronic system. All the information gathered is analysed and the end result is a suggested development plan. The advantage is that individuals make requests for the feedback themselves and receive the results directly.

C

Sarah Rains, from the pharmaceutical company Optec, said, 'Now feedback is available on our network, we encourage managers to choose how they use it. It is a flexible tool and we tell them that waiting for the annual event of a formal appraisal needn't apply.' At the engineering company NT, 250 technical managers have been through the feedback process. Jack Palmer, a senior manager there, said, 'We needed to develop the interpersonal skills of these technically-minded people. In particular, we wanted to build on their team-working and coaching skills.'

D

So, how is the new feedback culture likely to affect you? It could form the basis of your personal development programme, providing pointers to your strengths and also to those areas you need to develop more. Or feedback could be used for 'succession planning', where companies use the information to speculate on who has the right skills to move into more senior positions. As yet, few organisations have stretched the role of feedback so far as to link it to salaries. But one thing is clear: the future will bring even wider participation by all members

*Which section (**A**, **B**, **C** or **D**) does each statement **17 – 23** refer to?*
17. staff being reminded that it is not essential to restrict feedback to once a year
18. the way in which feedback could identify people suitable for promotion

19. the aim of improving staff communication throughout an organisation
20. the feedback obtained on an employee being linked to requirements for a particular job
21. aspects of a group of employees' work that were identified as requiring improvement
22. feedback indicating both positive and negative aspects of an individual's work
23. the participation of less senior personnel in a member of staff's feedback

Part C Business Knowledge

23. Economists have developed _____ theory to examine the best strategy that a firm can adopt for each assumption about its rivals' behaviour. Prisoners' dilemma is one of the examples.

24. In the age dependence theory of orgnisation's mortality hazard, organizations often start with considerable seed capital, credit and commitment from others, and political support; these initial resources insure that organization will exist for at least a minimal period of time. In formal terms, we call these initial resources an _____.

25. The PESTEL framework, which categorises business environmental influences into six main types. They are _____, _____, _____, _____, _____, _____.

26. In recruitment and selection, organisations may combine techniques and apply them together at events referred to as _____, in which Participants are observed by professional assessors, assessment is by a combination of methods and includes simulations of the key elements of work and Information is brought together from all the methods, usually under competency headings.

27. A(n)_____ is defined as equal cash flows at equal intervals of time for a specific period.

28. The effect of _____ refers to a relatively small circular movement in the large wheel (profit before interest and tax) leading to relatively large circular movement in the small wheel (returns to ordinary share holders).

30. The _____ rule states that a project is acceptable if the present value of anticipated cash flows exceeds the initial investment involved.

31. In profit and loss account, the difference between the trading revenue (sales) and trading expense (cost of sales) is referred to as _____.

Part D. Problem solving skills

Paul was unemployed and unable to find a job. He therefore decided to embark on a business venture. Christmas was approaching, and so he decided to buy gift wrapping paper from a local supplier and to sell it on the corner of his local high street. He felt that the price of wrapping paper in the high street shops was excessive, and that provided him with a useful business opportunity.
He began the venture with £40 in cash. On the first day of trading, he purchased wrapping paper for £40 and sold three-quarters of his stock for £45 cash.

What cash movements took place during the first day of trading?
On the first day of trading, a *cash flow statement* showing the cash movements for the day can be prepared as follows:

Cash flow statement for day 1

	£
Opening balance (cash introduced)	40
Add cash from sales of wrapping paper	45
	85
Less cash paid to purchase wrapping paper	40
Closing balance of cash	45

How much wealth (that is, profit) was generated by the business during the first day of trading?
A *profit and loss account* can be prepared to show the wealth (profit) generated on the first day. The wealth generated will represent the difference between the sales made and the cost of the goods (that is wrapping paper) sold:

Profit and loss account for day 1

	£
Sales	45
Less cost of goods sold (3/4 of £40)	30
Profit	15

Note that it is only he cost of the wrapping paper sold that is matched against the sales in order to find the profit, and not the whole of the cost wrapping paper acquired. Any unsold stock (in this case 1/4 of £40= £10) will be charged against the future sales of it.

What is the accumulated wealth at the end of the first day?
To establish the accumulated wealth at the end of the first day, we can draw up a *balance sheet.* This will list the resources held at the end of that day:

Balance sheet at the end of day 1

	£
Cash (closing balance)	45
Add stock of goods for resale (1/4 of £40)	10
Total business wealth	55

On the second day of trading, Paul purchased more wrapping paper for £20 cash. He managed to sell all of the new stock and all of the earlier stock, for a total of £48. The cash flow statement on day 2 will be as follows:

Cash flow statement for day 2

	£
Opening balance (from the end of day 1)	(32.)
Add cash from sales of wrapping paper	(33.)
	(34.)
Less cash paid to purchase wrapping paper	(35.)
Closing balance of cash	(36.)

The profit and loss account for day 2 will be as follows:

Profit and loss account for day 2

	£
Sales	(37.)
Less cost of goods sold	(38.)
Profit	(39.)

The balance sheet at the end of day will be:

Balance sheet at the end of day 2

	£
Cash (closing balance)	(40.)
Add stock of goods for resale	0
Total business wealth	(41.)

On the third day of his business venture, Paul purchased more stock for £46 cash. However, it was raining hard for much of the day and sales were slow. After Paul had sold half of his total stock for £32, he decided to stop trading until the following day.

42. Have a go at drawing up the three financial statements for day 3 of Paul's business venture.

Part E. Writing (200 words)

43.Which area of business are you most interested in? Give some reasons.

What knowledge and skills do you think are necessary if you are pursing a career in this area?

How are you working towards the mastery of these business knowledge and skills in university academic settings?

Part G. Speaking

44. Have your daily life been affected by the economic downturn? Could you please tell me something about your experiences?

Appendix III

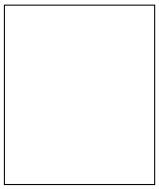
'Prisoners' dilemma' the excerpt from
Babu P. G. (1998), 'Game theory', Resonance, 3(7), pp53-60.

Game Theory

1. Nash Equilibrium

P G Babu

This article tries to outline what game theory is all about. It illustrates game theory's fundamental solution concept viz., Nash equilibrium, using various examples.



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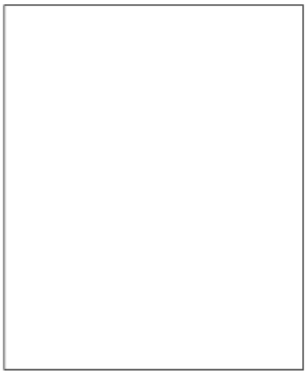
The Genesis

In the late thirties, the mathematician John von Neumann turned his prodigious innovative talents towards economics. This brief encounter of his with the day's economic theory convinced him that it was in need of a new mathematical tool. In the years that followed, he along with Morgenstern went about creating a brand new mathematical tool (anticipated by Borel and before him by Cournot). This new tool was offered to the profession in their now classic book '*Theory of Games and Economic Behavior*'. In this book, they developed two person zero sum games and other cooperative game theoretic concepts. But, soon economists found out that the phenomenon of 'one person's gain is the other person's loss' was too restrictive in many applications. After some initial euphoria, the interest in this new tool died down except for a small hard core group of mathematicians who continued to work on these concepts. Princeton was the epicentre for most of them. Hence, it is not a surprise to see young Nash Jr taking the next giant step in the Fine Hall of Princeton towards what we now know as 'modern non-cooperative game theory'.

Game theory can be viewed as an interactive decision theory. It deals with the situations where people with different (mostly competing) goals try to take into account others' actions in deciding on the optimal course of action. Take for instance chess. When you decide what move to make, you also take into account the likely response of the opponent and your next response, his reply and so on. The fact that your opponent has

Box 1. John Nash Jr.



John F Nash Jr came to Princeton for his graduation in mathematics with a one line recommendation which said "This man is a genius". Within two years of his arrival, when he was just twenty, Nash completed his 21 page doctoral dissertation under Al Tucker: this dissertation lays down much of what we now know as modern game theory, with the famous equilibrium concept (which stands in his name) to analyse n-person, non-zero sum situations as the centre piece. Even before his arrival at Princeton, Nash Jr, as an undergraduate student, wrote a term paper for a course on international economics (his only encounter with economics). This term paper later on became one of the all time great papers in game/economic theory which laid the foundation stone for bargaining theory. Soon afterwards, Nash Jr was struck by schizophrenia and lost his next thirty years to this disorder and recovered miraculously in 1989 to win the Nobel Prize in Economics for the year 1994 along with John Harsanyi and Reinhard Selten.

equal intelligence and self interest enables you to duplicate his reasoning process. For example, consider two companies producing the same product and competing in the same market. Their aim would be to capture as much market share as they can using various ploys such as price cutting, gift schemes, and advertising. Which one of these ploys would be successful given the opponent company's ploy? Game theorists are interested in exploring such situations.

Eternal Dilemma

The best way to learn game theory is through playing games. Let us begin with one of the most popular games, viz., *prisoners' dilemma*. This game has been attributed to Al Tucker of Princeton University. In this game there are two thieves who have been caught by the police and brought before the magistrate. As there is only circumstantial evidence to their crime, the magistrate comes up with the following clever scheme. He locks them up in separate cells in such a way that they cannot communicate with each other. If they both plead guilty, they get 10 years imprisonment each. On the other hand, if both plead not guilty they get away with 1 year prison terms. But, if one pleads guilty

		PRISONER 1	
		CONFESS	DON'T CONFESS
PRISONER 2	CONFESS	-10, -10	-0.5, -15
	DON'T CONFESS	-15, -0.5	-1, -1

Figure 1. Prisoners' dilemma.

and the other not guilty, then the one who pleads guilty gets 0.5 years and the other gets 15 years imprisonment. The question now is: did the magistrate do the right thing by offering this scheme to the prisoners?

The actual game structure of this decision situation is given in *Figure 1*. This structure is known as the normal form game where the sequences of moves and countermoves (in other words, the temporal structure) are suppressed. Players are assumed to move simultaneously and choose one of the two actions: to plead guilty or not guilty. The actions of the two players result in an outcome. An outcome is generally marked by the payoffs. These payoffs are given by the numbers appearing in each cell corresponding to their actions. The first element stands for the row player's payoff and the second corresponds to that of the column player. Players are assumed to be rational economic agents who are interested in maximising their payoffs. The following features of the game are common knowledge ('everyone knows it, everyone knows that everyone knows it, ...'): the rationality of the players, the action choices, and the payoffs.

Let us see if the magistrate did the right thing or not. Look at the row player. His best payoff is 1 year prison term but to get that he needs to plead 'not guilty'. But, his co-conspirator now has the incentive to plead guilty as she can get away with 6 months imprisonment. Given this fact along with the knowledge that she is a rational player leads the row player to believe that if he were in her position he would choose to plead guilty. With this reasoning at the back of his mind, he prefers to plead guilty. The column player also reasons along the same lines and opts to

Players are assumed to be rational economic agents who are interested in maximising their payoffs.

Box 2. Pareto Efficiency

Pareto efficient solution is one where the players cannot in any way improve their current payoffs through a different action choice without reducing others' payoffs. In the above game, the outcome where both the prisoners are 'pleading guilty' can be improved upon by both deciding to plead 'not guilty' without hurting the other player's payoff. Hence, we conclude that the unique Nash equilibrium of the game is Pareto inefficient.

plead guilty. Note that pleading guilty is the only possible solution in this game. Hence, both end up pleading guilty vindicating the magistrate's scheme.

This game brings about the contradiction between the individually rational outcome (both pleading guilty) and what is collectively good for all (both pleading not guilty). It also shows that the resulting solution to the game could be Pareto inefficient (See *Box 2*).

Note that conjectures about the opponent's play has no role in picking the final solution in this game. The equilibrium concept we have used to solve the game is what is known as the Nash equilibrium: choose the best action from among your action set given that the opponent will choose her best action. Of course, we assume that the action sets, payoffs and the game structure are common knowledge. This game can be used to study various issues such as: two firms competing to sell the same product (say, a toothpaste), two nations erecting trade barriers and the exploitation of common property resources [1] such as fisheries.

Notice that the key to arriving at the Nash equilibrium outcome in the above game is the individual's ability to duplicate other's reasoning process. But if you do not know the other person's characteristics, his tastes, ability, ideology, etc., then you can not reason what he will do in a given situation. In real world, such lack of knowledge about one's opponent is the norm. For a long time, game theorists did not know how to formulate such a situation. This proved fatal to the applicability of game theory to real world problems. In this situation, John Harsanyi provided a breakthrough. In a three part paper written in early 1960s, he showed how one can formulate games where people do not have much information about each other. It would be apt to say that Harsanyi was the one who resurrected game theory's applicability. This formulation of Harsanyi is however beyond the scope of this paper.

[1] These are the resources for which no one has exclusive property rights and hence none have any incentive to protect the resource or optimally use it.

'Tit-for-tat is a smart strategy', the excerpt from
Shanker, K. (1999) 'Prisoner's dilemma and other games that animals play', Resonance 4 (3), pp. 39-44.

Tit for tat is a Smart Strategy

Axelrod, a political economist and Hamilton, an evolutionary biologist, evolved a theory around the prisoner's dilemma and other such games that people and animals play. Axelrod held a competition where he invited participants to submit strategies for the iterated prisoner's dilemma game. Here, each strategy (such as ALWAYS COOPERATE or ALWAYS DEFECT) would play each of the other strategies once in a series of games. ALWAYS COOPERATE would do well against another ALWAYS COOPERATE, but would do very badly against ALWAYS DEFECT. Therefore, if the population (of animals in the wild, or players in the market) comprised initially ALWAYS COOPERATE, one animal/player who ALWAYS DEFECTED would do very well. Various complex strategies were submitted, but amazingly, the strategy which won the competition was a very simple strategy called *tit for tat*. TIT FOR TAT simply copied the last move of its opponent. If it played first, it played COOPERATE. Hence, if it met another TIT for TAT, they would both end up cooperating through the game. The qualities of TIT FOR TAT which made it so successful were that it was nice, retaliatory and forgiving. TIT FOR TAT always played cooperate first, hence it was a nice strategy, and this meant it was successful against other nice strategies. It was retaliatory, and hence successful against nasty strategies; if another strategy defected, TIT FOR TAT copied its move and hence defected too. Therefore it did not get the SUCKERS PAYOFF for more than one move. Finally, it was forgiving, in that if another strategy defected by chance or intent, and then subsequently cooperated again, TIT FOR TAT did not remember the earlier defection, but also started cooperating again with its opponent.

Various complex strategies were submitted, but amazingly, the strategy which won the competition was a very simple strategy called *tit for tat*.

Axelrod and Hamilton held a second round of competition after publishing the results of the first round. TIT FOR TAT won again. There is something simple and powerful about the strategy. If we examined the basis on which most of us evolve personal relationships, we do something fairly similar. Those who are too trusting often get 'suckered'. Those who are too

suspicious never make friends. The successful ones are those who constantly evaluate, form alliances where they can and withdraw if they see signs of 'defection'. Needless to say, the business world functions along very similar principles and is even more sensitive to cooperation and defection. In the natural world around us, every animal is trying to maximise its reproductive success and hence perpetuate the genes it carries. Here again, it would be of paramount importance, a matter of life and death really, to evolve strategies that would maximise fitness. Such strategies might therefore evolve to enable the animals to recognise other individuals and evaluate them through repeated interactions.

Appendix IV

ESL 33C skill objectives

Reading Skills
*** previewing academic texts** *** skimming texts to find main ideas** *** scanning texts to locate specific information** **inferencing to recognise implicit information** *** analyzing author's opinion/bias** **Increasing rate and improving comprehension** **Expanding vocabulary through context clues/ word forms** *** synthesizing reading information in writing assignments**
Writing Skills
*** practicing brief and extended definitions for essay questions based on readings and lectures** *** writing comparison/ contrast essays, cause/ effect essays, and argumentation essays synthesizing information from readings and lectures** *** writing a brief research paper using citations in three drafts** *** editing grammar errors** *** writing summaries of selections from readings and lectures**
Listening Skills
*** improving comprehension of academic lectures** *** note taking, outlining, and summarizing of academic lectures** *** synthesizing lecture information in writing assignments recognizing lecturer's register/opinion/bias**

Source: Weigle, S. C. & Jensen, L. (1997: p. 209) 'Issues in assessment for content-based instruction', In Snow M. A. & Brinton D. (Eds.) *The content-based classroom: perspectives on integrating language and content,* N.Y. Longman, pp.201-212.

ESL 33C Composition Scoring Rubric

Content -------- / 6 points		**Organization/ Rhetoric -------/ 6points**		**Language -------/ 6 points**	
-------	Paper clearly addresses the content of all parts of the task.	-------	There is a clear organizational plan evident throughout the paper which is appropriate to the task.	-------	Ideas from assigned readings and/or listening passages are cited correctly and paraphrased using a variety of techniques.
-------	It is no topic with little or no irrelevant or off-topic material.	-------	The thesis statement is clearly formulated to express the main the main idea of the paper.	-------	Vocabulary is varied/accurate, academically appropriate, and integrates terms from the unit.
-------	Evidence (examples, illustrations, and details) is well chosen, clearly explained, and sufficient enough to support main idea.	-------	The topic sentence of each paragraph is clearly formulated.	-------	Sentences are well formed with a variety of simple and complex sentences.
-------	Evidence from the unit reading and/or listening passages is synthesized clearly or used appropriately to support arguments.	-------	Examples and details develop the main idea of each paragraph logically and completely.		There is evidence of careful editing for mechanics.
-------	Personal experiences and ideas are used appropriately for support.	-------	A variety of transitions (either words, phases, or entire sentences) is used effectively to connect sentences and paragraphs.		There is evidence of careful editing for grammatical features.
-------	Ideas from the readings and listening passages are incorporated as support – *without plagiarism.*	-------	The conclusion tires the paper together by clearly and concisely restating the thesis and summarizing the main ideas.		
-------	The paper engages the reader's interest.				

Source: Weigle, S. C. & Jensen, L. (1997: p.212)

ACTFL Assessment Criteria: Speaking Proficiency

Global Tasks/Functions	Context	Content	Accuracy	Text Type
Superior **Can discuss extensively by supporting opinions, abstracting and hypothesizing**	Most formal and informal settings	Wide rang of general interest topics and some special fields of interest expertise, concrete, abstract, and unfamiliar topics	Errors virtually never interfere with communication or disturb the native speaker	Extended disclosure
Advanced **Can describe and narrate in major time/aspect frames**	Most informal and some formal settings	Concrete and factual topics of personal and public interest	Can be understood without difficulty by speakers unaccustomed to non-native speakers	Paragraph disclosure
Intermediate **Can maintain simple questions**	Some informational settings and a limited number of transactional situations	Topics related primarily to self and immediate environment	Can be understood, with some reception, by speakers accustomed to non-native speakers	Discrete sentences and strings of sentences
Novice **Can produce only formulaic utterances, lists, and enumeration**	Highly predictable common daily settings	Common discrete elements of daily life	May be difficult to understand, even for those accustomed to non-native speakers	Discrete words and phrases

Source: Byrnes, H., Thompson, I., Buck, c., & Kathryn (1989) *The ACTFL oral proficiency interview: Tester training manual*.

Appendix V

Test on Game Theory (Week 1)
TEST 1

1. Listening

(1) In more complex games, what strategy may suggest a different policy?
A. maximin B. maximax C. minimin D. minimax

(2) What is the right order of the riskness of strategy from high to low according to the passage?
A. comprmise strategy, maximin, maximax. B. maximin, compromise, maximax
C. maximin, maximax, compromise D. maximax, compromise, maximin

(3) A large oil company, Esso, states that_____.
A. it will charge the matchable price by those rivals within a given radius.
B. it will charge the higher price than charged by those rivals within a given radius.
C. it will charge the lower price than charged by those rivals within a given radius.
D. it will charge whatever price no matter whatever price those rivals charge within a given radius.

(4) If tere is only one other filling station in this area, it should charge the price which would_____.
A. maximise its profits B. minimise its profits
C. maximise its rivals' profits D. minimise its rivals' profits

(5) In the absence of other filling stations in the area, there is likely to be a _____.
A. relatively high price B. relatively low price C. consistent price D. undercutted price

2. Business Knowledge

(1) The strategy of choosing the policy whose worst possible outcome is the least bad is called _____.
The strategy of choosing the policy which has the best possible outcome is called _____.
A. Maximin B. Minimax C. Maximax D. Minimin

(2) Prisoner's delimma tells us that where two or more firms by attemping independently to choose the best strategy for whatever the others are likely to do end up in a _____position than if they had _____ in the first place.
A. better, co-operated B. worse, defected C. worse, co-operated D. better, defected

(3) Which statement of the tit for tat strategy is incorrect?

A. It entails coopertion in the first round.

B. Every subsequent adopt your opponents strategy.

C. It starts out co-operatively and is not the first to defect.

D. It is an optimal strategy with the certain and complete information.

(4) Given that whatever approaches will lead to the same strategy, with which sometimes weakness could be strength, this is known as_____.

A. dominant strtegy game B. battle of the sexes game

C. location game D. prisoners' dilemma

(5) In the battle of the sexes games, there are _____ pure strategy Nash equilibrium(a).

A. one B. two C. three D. four

3. Reading comprehension

A world of games

If one looks around at the animal and even the plant world, it seems that everyone is in the act. Parents are in conflict with offspring because each offspring would like to get more resources (attention) from the parent, while the parent would be best served by distributing its effort amongst all the offspring. This forms the basis of parent-offspring conflict.

During reproduction, both the sexes would like to put in minimal effort while getting the maximum possible reproductive output. This conflict is known as the battle of the sexes. All animals and plants compete for various kinds of resources including food, space and mates. This sets the stage for the evolution of a wide variety of strategies and counter-strategies so that each individual can maximise its fitness. Game theory gives us a framework to study these strategies and the concept of the evolutionarily stable strategy teaches us that in a given environment, a particular strategy may be superior to other strategies and resistant to cheating or invasion.

On the other hand, strategies may coexist in a population in a certain proportion. The theory has also been invoked to study and explain altruism (giving up one's own benefit for the good of another) in animals. Altruism baffled early evolutionary biologists as it seemed to contradict the theory of natural selection and individual fitness, which assumes that everyone acts selfishly.

However, Hamilton's theory of kin selection demonstrates that animals can gain fitness from the success of relatives (the genes of an animal can be passed on to the next generation through its offspring and also the offspring of siblings and other relatives). Hence more closely related animals are more likely to show altruistic behaviour towards each other. However, another hypothesis for altruism was suggested by Trivers, which was called reciprocal altruism and could occur between completely unrelated animals. This invoked the kind of cooperation seen in the prisoner's dilemma game, where the benefits of mutual cooperation outweigh the benefits of mutual defection and there are safeguards against cheating.

It is interesting that many of these concepts can be applied to human societies and human behaviour as well. Game theory is an extremely interesting way of looking at animal behaviour and has created new perspectives and many insights into the field of study.

(1) The parent-offspring conflict states that_____.
A. parents remain the resources for themselves rather that distributing them to their offspring
B. parents give their most attention to their favourite offspring
C. offspring refuse the resources and attentions that parents give them
D. parent would equally allocate its effort to offspring whereas offspring intend to monopolise the resources

(2) The evolutionarily stable strategy tells us that_____.
A. in a certain circumstance, all strategies are equal
B. in a given environment, the strategies advocate defection or incursion
C. in a certain circumstance, a particular strategy has an advantage of other strategies
D. in a given environment, cheating and invasion are inevitable

(3) Which following statement about 'Altruism' is NOT correct?
A. It means sacrificing one's benefit for the interest of others.
B. It is against the theory of natural selection and individual fitness.
C. It states that everyone act selfishly.
D. It is informed by the coexistence of strategies.

(4) Altruistic behaviour _____.
A. is more likely to occur between different animals.
B. never occurs between totally different animals.
C. might help the animal to gain fitness from its siblings and the relatives.
D. might be seen in the mutual defection in the prisoners' dilemma

(5) It could be inferred from the last paragraph that _____.
A. game theory cannot applied in animal world
B. game theory can be only applied in human societies
C. game theory can be more useful to study human behaviour than animal behaviour
D. game theory can be useful to study animal world as well as human beings.

4. Problem solving skills

The table below shows the annual profits of two paint manufacturers. At present they both charge £5.00 per litre for gloss paint. Their annual profits are shown in box A. The other boxes show the effects on their profits of one or the other, or both firms reducing their price to £3.50 per litre.

	Durashine's price	
	£5.00	**£3.50**
Supasheen's price **£5.00**	**A** £6 million each	**C** £2 million for Supasheen £8 million for Durashine
Supasheen's price **£3.50**	**B** £9 million for Supasheen £3 million for Durashine	**D** £4 million each

(1) Which of the two prices should Durashine charge if it is pursuing
a maximax strategy? _____
a maximin strategy? _____

(2) Which of the two prices should Supasheen charge if it is pursuing
a maximax strategy? _____
a maximin strategy?_____

(3) Why is this known as a *dominant strategy* game?

_____

_____

(4) Assume now that the 'game' between Supasheen has been played for some time with the result that they both learn a 'lesson' from it. What are they likely to do?

_____
_____
_____

5. **Writing**

Illustrate an example of the prisoners' dilemma in your daily life as well as the possible strategy resolve it.

6. Speaking

Retell the location game – setting the shop and what did you learn from this game?

Appendix VI

Preliminary Testing of Assumptions for MANOVA

Descriptive Statistics

Group		Mean	Std.	N
Av. Lang.	Language-based group	63.00	7.104	31
	Discipline-based group	60.35	8.950	31
	Task-based group	65.43	7.417	30
	Total	62.90	8.056	92
Av. Bus.	Language-based group	45.00	18.065	31
	Discipline-based group	49.35	16.740	31
	Task-based group	60.73	17.969	30
	Total	51.60	18.626	92
Av. PS	Language-based group	50.39	13.361	31
	Discipline-based group	55.39	12.738	31
	Task-based group	61.10	12.184	30
	Total	55.57	13.375	92

Tests of Normality

Group		Kolmogorov-Smirnov [a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Lang	Language-based group	.115	31	.200 *	.949	31	.150
	Discipline-based group	.137	31	.146	.933	31	.053
	Task-based group	.150	30	.084	.952	30	.190
Bus	Language-based group	.125	31	.200 *	.942	31	.096
	Discipline-based group	.130	31	.197	.945	31	.116
	Task-based group	.140	30	.141	.926	30	.038
PS	Language-based group	.163	31	.034	.927	31	.036
	Discipline-based group	.132	31	.180	.964	31	.364
	Task-based group	.165	30	.036	.896	30	.007

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Residuals Statistics [a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	22.04	73.44	52.59	11.041	92
Std. Predicted Value	-2.767	1.889	.000	1.000	92
Standard Error of Predicted Value	3.172	11.834	5.887	1.693	92
Adjusted Predicted Value	23.76	74.03	52.53	11.258	92
Residual	-58.829	64.173	.000	28.878	92
Std. Residual	-2.003	2.185	.000	.983	92
Stud. Residual	-2.059	2.286	.001	1.005	92
Deleted Residual	-62.157	70.243	.056	30.196	92
Stud. Deleted Residual	-2.099	2.344	.001	1.013	92
Mahal. Distance	.073	13.788	2.967	2.342	92
Cook's Distance	.000	.124	.012	.020	92
Centered Leverage Value	.001	.152	.033	.026	92

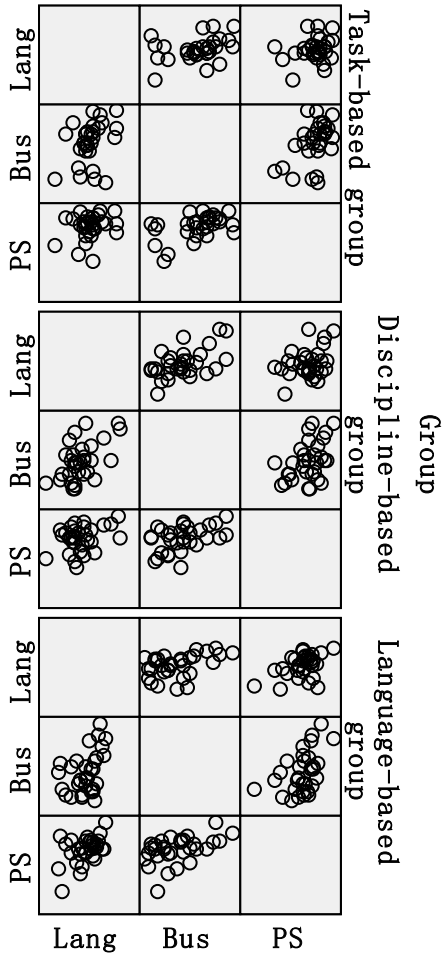
a. Dependent Variable: ID

Box's Test of Equality of Covariance Matrices [a]

Box's M	4.870
F	.386
df1	12
df2	8299.994
Sig.	.969

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept+Group


Task-based group
Discipline-based group
Language-based group
Group
Lang
Bus
PS

Appendix VII

Interview Transcripts

The First interview – Student A (A) Interviewer (X)

X: Do you have any experiences of learning a specific subject in English, if no, what do you think were the difficulties in doing it?

A: No. I think the hardest thing is the language barrier in learning that subject, (including) lots of new vocabularies, terms, and special expressions. And our English is not good enough, so I am not confident in learning a those specific subjects in English. Besides, I don't think our school has those faculties (who) can deliver this kind of programme to us.

X: If you are to join such a programme, to what extent do you think would it be focused on language skills, subject knowledge or problem solving skills? Why?

A: Language skills, I think. Because if our English is (to be) improved, the subject knowledge can be learned easily, (and) we can also improve the problem solving skills in that subject if our English is very good.

X: If we have three groups, the first one is the content-based group, assuming that you are able to overcome the language barriers on your own when you are studying the subject in English; the second one is the language-based group with the purpose of helping you to learn the subject by means of sweeping out the language difficulties; the last one is the task-based group with a variety of classroom tasks and activities to enhance your confidence in accomplishing a task in English. Which group are you going to choose to be involved in?

A: I'll choose language-based group.

X: You are invited to join a programme of business subject in English. What do you expect this programme to be like?

A: I hope the programme won't be too hard. (laugh) Or I think we'll all run away. But we do need this kind of programme for our future career. I hope the programme will give us some professional knowledge in business area, and we can learn some business skills from the lesson, and we can also learn some useful English about business. I hope it will be interesting and there are some (classroom) activities.

X: Could you please tell me more about what do you think this programme to be hard or easy?

A: Um…I think we need to understand the materials the teacher gives us, and the teacher will explain those term (terminological) vocabularies and expressions to us. He (the teacher) can use simple English to teach us the business knowledge.

X: Do you expect the teacher to speak English through out the lesson or to give some explanation in Chinese when necessary?

A: Um… I hope he (the teacher) can speak English all the time.

X: Why?

A: Because we are learning business in English and should learn everything in English. And if he speak Chinese, we'll be more depend (ant) on his Chinese explanation, and it's no good to learning English.

X: If a test is given to find out the learning outcomes of language proficiencies, business knowledge, problems solving skills, and overall performances, which group do you think will perform the best in these areas? And could you please tell me the reasons as well?

A: It's really hard to predict. But I still believe language (-based) group will perform the best in (on) language proficiencies, because we'll get more help in language. Content (-based) group probably will perform the best on business knowledge because they are focused on learning business knowledge. And the task-based group might have the best problem solving skills because they will receive more training on the skills. It's a lot harder to say which group will be the best overall. But I would like to say that language (-based) group will win. Because the biggest challenge we are facing up in this programme is English language. The better we could overcome the language barrier, the better results we'll get.

(The end)

The First interview – Student B (B) Interviewer (X)

X: Do you have any experience of learning a specific subject in English, if no, what do you think were the difficulties in doing it?

B: No. We never got a chance to learn a specific subject in English before. We just sat in many language courses such as intensive (reading), extensive reading, English grammar, translation and so on.

X: Do these courses cover a variety of topics in all aspects of social and natural science?

B: Yes, they are (do). And we never focused on a specific subject in English. I think the difficulty is there are no English teachers in our school who is (are) professional in a specific subject, and there are no (subject) teachers from other department who can teach the professional knowledge in English. What's more, our English is still poor, and we can't manage learning the professional subject knowledge by ourselves. We don't know where to start, what to learn, (and) how to learn it.

X: If you are to join such a programme, to what extent do you think would it be focused on language skills, subject knowledge or problem solving skills? Why?

B: I think we should focus on subject knowledge and problem solving skills, because we are aimed to pick up the subject knowledge and the skills to deal with different situations in this subject area. If we can succeed in learning the subject and the skills, I think our English skills can be improved as well.

X: If we have three groups, the first one is the content-based group, assuming that you are able to overcome the language barriers on your own when you study the subject in English; the second one is the language-based group with the purpose of helping you to learn the subject by means of sweeping out the language difficulties; the last one is the task-based group with a variety of classroom tasks and activities to enhance your confidence in accomplishing a task in English. Which group are you going to choose to be involved in?

B: I'd like to join in content-based group. Because I think we can learn English unconsciously when we are learning the specific knowledge.

X: You are invited to join a programme of business subject in English, what do you expect this programme to be like?

B: I'm looking forward to a very professional business programme in English. I hope all (the) business knowledge and skills will be taught in English. The teacher is like a professional business subject teacher, and his English is very good.

X: How could you overcome the language barriers if the teacher is not going to give you any language support during the lesson?

B: Um, I think it will be fine if the teacher speaks a little slowly and explain(s) everything in a simple way. The lesson can be much better if he is humorous to give us lots something interesting. And I hope he can give some explanations of terminologies and complex language. That will be very helpful. If we can't follow him, we are allowed to interrupt him to ask, aren't we? (laugh)

X: (laugh) Of course you are. If a test is given to find out the learning outcomes of language proficiencies, business knowledge, problems solving skills, and overall performances, which group do you think will perform the best in these areas? And could you please tell me the reasons as well?

B: Um … it's really a tough question. Is it the language test in a general sense?

X: No, it's based on the English language you picked up from this programme.

B: Right. Let me think about it. (Pause) Language (-based) group is possible to do (perform) the best on language test because they get more help in language skills. Our group (content-based group) might be on the bottom. (Laugh) But we will be the best in the business knowledge test because we concentrate on it. And task-based group will be the best in problem solving skills test because they get more chances to practice those skills. (In terms of) overall performance, I really don't know which group will be the best because one group can be better in one area than another one and vice versa, so all of these three groups are likely to be the best (in terms of overall performances).

(the end)

The First interview – Student C (C) Interviewer (X)

X: Do you have any experience of learning a specific subject in English, if no, what do you think were the difficulties in doing it?

C: No, we don't. We just learned English as a pure language, (such as) how to write essay, how to communicate, how to read an article and so son. I think, first of all, our school didn't offer this kind of programme, because we don't have suitable teachers and other resources. And secondly, our English still needs (to be) improved. It's very hard to learn a specific subject with our shabby English. Last, we are not able to understand those new words, expressions and difficult stuff in the specific subject if we learn (it) in English.

X: If you are to join such a programme, to what extent do you think would it be focused on language skills, subject knowledge or problem solving skills? Why?

C: Um… All of them I think. They are all important. Because our final purpose of learning is to get the skills to resolve the real problems in our future work, but we need good English and good subject knowledge. We can't (be) successful if our English is not good, or we lack the subject knowledge. And if we are good at both of them then we can develop our problem solving skills in an easier way.

X: If we have three groups, the first one is the content-based group, assuming that you are able to overcome the language barriers on your own when you study the subject in English; the second one is the language-based group with the purpose of helping you to learn the subject by means of sweeping out the language difficulties; the last one is the task-based group with a variety of classroom tasks and activities to enhance your confidence in accomplishing a task in English. Which group are you going to choose to be involved in?

C: I think the task-based group is most suitable for me. I think the task (-based) group will be very interesting and we can learn English and business knowledge at the same time when we are doing the tasks in the classroom. And it won't be too boring and we'll always keep the motive to learn it.

X: You are invited to join a programme of business subject in English, what do you expect this programme to be like?

C: It's exciting news. I expect the lesson will be very interesting and interaction (interactive). The teacher will teach us the business knowledge in English when we are doing some tasks in the classroom.

X: What kind of tasks and activities are you looking forward to in the classroom?

C: Group discussion, pair work, and also perhaps some games to make the lesson

quite interesting and then we are eager to learn.

X: If a test is given to find out the learning outcomes of language proficiencies, business knowledge, problems solving skills, and overall performances, which group do you think will perform the best in these areas? And could you please tell me the reasons as well?

C: I believe our group (task-based) will perform all the best in all these areas. Am I overconfident? (Laugh) We'll definitely have the best problem resolving (solving) skills, because we practice more than the other two groups. By doing (the) tasks, I think we can learn English and business knowledge better than other group(s). We'll work harder than them. So our English and business knowledge should be also the best at the end of the programme. As a result, our overall performance should be the best among the groups.

(The end)

The Second interview – Student D (D) Interviewer (X)

X: You have been involved in the language-based group for three weeks, and could you please tell me the positives and the negatives of the programme?

D: Well, I think it's a good programme. We got access to many materials about some interested business topics. You explained these material in English quite well. (Laugh)

X: (laugh) Oh, thank you.

D: You helped us to learn a lot of new vocabularies, new terms and new knowledge about business. Those articles are very interesting and professional. If we read them by ourselves, it can be very difficult. And it also gave us some chances to practice reading skills such as skimming and scanning, writing skills such as summarising and paraphrasing, speaking (skills) such as how to express our ideas correctly and etc.

X: What about negatives?

D: Perhaps we got too many materials to read and you still pay(ed) attention to explaining the grammars and the words (vocabularies), so I think to some extent it's still like a intensive reading course, and sometimes we didn't know how to deal with the business knowledge and those specific skills needed in business situations. If we read too many things in a class, you will (be) tired. And if we did the same things in each lesson, we'll lose the interest and motivation. And we still haven't got enough chances to communicate with each other in this programme.

X: Is the programme easy for you? What do you think are the barriers which hinder your progression in the programme?

D: Um, I think it's quite challenging for us. There are some very difficult materials you gave us in the classroom. We can't (couldn't) understand these business knowledge if you didn't help us to overcome the language barriers in the lecture. Generally speaking, the most materials we used in the lecture are difficult and challenging. And the most difficult thing is that we still lack the business background and the professional vocabularies, and we can't (couldn't) understand these knowledge in a deep sense.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

D: I think the programme to a large extent still helped us to improve our language skills, because we focused on basic English skills. And at the same time, we learned

some business knowledge and skills, but I don't think we learned them well because my attention was drawn more to the language development.

X: Did your tests' results tell the same story?
D: Yes. My scores on language are not bad, but I really did quite badly on business knowledge and skills. (sigh)

X: Don't be sad. It's my fault in some sense. (laugh) Are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

D: They are quite good and we are tested by what we learn from the lecture. And the contents fit the materials we read closely. Besides, we were tested after each topic, so we didn't have much pressure to do a final test at the end of the programme. So I like this test style.

X: How would we improve the programme to help you to achieve a better academic outcome?

D: If the programme could be designed to give us more understanding of business knowledge and skills instead of language skills, for example, some interesting activities in a real business situation. If we practice more, we will perform better on business knowledge and skills, I think.

(the end)

The Second interview – Student E (E) Interviewer (X)

X: You have been involved in the content-based group for three weeks, and could you please tell me the positives and the negatives of the programme?

E: It's the most challenging programme we have (had) so far. The programme is quite professional and gave us lots of chances to practice listening skills. It is quite well-designed. The business knowledge structure is very clear and the visuals are presented in a beautiful fashion. We learned a lot of business knowledge and skills. We also picked up many new vocabularies and terminologies in different business areas. I think they are very helpful to our future study. And you teach (taught) this programme successfully with your professional business knowledge and excellent English.

X: (blush) Oh thanks for your nice comments. What about negatives?

E: Unfortunately, because your English is much better than ours, we were not able to follow you sometimes. (Laugh)

X: (Laugh) It's my fault. I didn't get myself understood.

E: We came across too many new vocabularies, professional knowledge and specific skills and we could not get them in the lecture. You know some of us bring the electronic dictionaries to the lecture every time. But when we are (were) trying to work out the meaning of these new glossaries, we couldn't focus on what you said. In this sense, we felt frustrated at times.

X: Is the programme hard for you? What do you think are the barriers which hinder your progression in the programme?

E: Of course it's hard me and my classmates. We have (had) no business knowledge 4vgbefore. This is a business programme in English, so it's a lot harder. I think the biggest difficulty for us is the language. We still struggled with English. Our poor English stopped us learning the business knowledge and skills further.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

E: Um, anyway I improved my business knowledge and acquired many business solving skills, though I didn't learn them quite well. In terms of language skills, I think it's less possible to improve them within a short period of time. We didn't get any special (specific) guide and practice in listening, speaking, reading and writing. So I don't think I improved a lot in English proficiencies.

X: Did your tests' results tell the same story?

E: I feel ashamed of my test's results. I did too bad (ly). My performance on business knowledge and problem solving skills were horrible. My performance on language tests are (were) not that bad, probably because my English was not so bad before the programme (started). But I had few ideas about the topic of writing tasks because I didn't get what you taught me in the lecture.

X: Don't worry. It's because I'm not a good teacher. By the way, are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

E: They are good. I like these quizzes after each lecture, so we don't have heavy burden to review lots of knowledge after we finish the whole programme. I hate the final exams. I normally felt stressful about massive revision work and the tension sitting in the 2-hour exam. And the one-off exam's result will determine all my performances in a term. Compared with the final exams, these multiple tests are much better. If I lost marks this time, I could catch up next time, and I felt relaxed.

X: What about content and question styles in the tests?

E: The different questions are designed to test our different aspects of learning outcomes of this programme, I guess.

X: Yes, you are quite right.

E: These questions are all related the knowledge and skills we need to learn on that topic in the lesson. But I feel a bit unfair if I didn't learn the business knowledge very well, I will have nothing to say or to write in the speaking and writing tasks, and my whole tests results got worse.

X: How would we improve the programme to help you to achieve a better academic outcome?

E: I'm looking forward to more language help in this course. Could you speak further slowly and explain some business terms to us in more details? Could you give us some auxiliary articles or other materials to help us to get a better understanding of the business knowledge and practice our English skills? Could you not only teach us those business skills, but also give us some opportunities to practice these skills by ourselves through some classroom activities?

(the end)

The Second interview – Student F (F) Interviewer (X)

X: You have been involved in the task-based group for three weeks, and could you please tell me the positives and the negatives of the programme?

F: It's really fantastic! We never had such an exciting programme before. There are (were) a variety of interactive activities and we learned a lot of business knowledge and skills. And we kept on speaking English all the time in the lesson. I didn't know those difficult business model could be taught in such a clear and interesting way. How did you work out these ideas? I think you are really a creative and great teacher.

X: Thanks so much for your nice words. But are there any negatives of the programme?

F: If I have to say, the lesson sometimes might be very busy. I mean we are (were) doing the tasks all the time and we feel (felt) very tense when we lack(ed) business knowledge and found we could not express myself (ourselves) with in English, especially (as to) those business vocabularies and phrase(s). I like these activities, so I worked quite hard in your lesson. But I'm not about others. Perhaps some of them chat (ted) (about) something else rather than doing your task in the classroom. And I don't know whether they learned something from your lesson.

X: Is this programme easy for you? What do you think are the barriers which hinder your progression in the programme, as you pointed out, some of you didn't work hard in the classroom?

F: It's not an easy programme. It's quite challenging and we need to learn these knowledge and skills actively. For those who didn't work hard, I think maybe it's because their English is very poor or they are not very interested in these tasks. Because the programme need us to highly concentrate on your instruction and guide, and sometimes we have (have) to understand your meanings quickly, for some students, maybe they could not manage it.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

F: All of them were improved, obviously. We get (got) many opportunities to practice spoken English and communication skills with our group members or partners, and you gave us a topic or something to say, so I think my English skills can be improved. By doing the tasks in the classroom, I learned some business knowledge I didn't know before, and also learned some skills to resolve the business problems.

X: Did your tests' results tell the same story?

F: I think so. I find the tests are not that hard. You just tested something we learned from the activities. The only problem is that I didn't know how to write the essay question properly because I didn't know how to express the ideas in the right way in academic writing.

X: Right. Are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

F: I'm happy with them if we are not given an extra final exam in the end. (Laugh)

X: No, you are not.

F: Actually the tests just examined what we exactly did in the lesson, and covered different arrears of English skills and business knowledge. If we work hard in the classroom and I think these tests are really not hard. Unlike other exams, sometimes we are tested by some knowledge never taught.

X: How would we improve the programme to help you to achieve a better academic outcome?

F: I think it's already very good. If I have to say, I would like you give us some more articles to read, (and) then we'll understand the knowledge and master those skills better. Because we never learned these subjects, we don't know how to express them in English. Although we at last know what they are but they are quite superficial. I think some journal articles or a textbook may give us a deep (er) understanding.

(the end)

The Third interview – Student G (G) Interviewer (X)

X: This programme has got one week left, and I really appreciate that you stick to the end of the programme. Could you tell me the positives and negatives of the language-based group you are involved in?

G: We learned a large amount of business knowledge and skills from this programme. We read many materials on different business topics. These topics are quite interesting to us. You helped us to improve our English skills by teaching business in English. We learned lots of useful vocabularies and expressions about business. We get more familiar with the style and discourse used in business English. Under your help in language, I think I can basically understand those materials.

X: What about negatives?

G: The programme is still like a comprehensive English course. You know, we have had enough readings in other courses. Although the topics are very interesting and useful, but the way we learned are (is) still the same, such as learning the meaning of the glossary, paraphrase (paraphrasing) the sentences, skimming and scanning, and summary (summarising). Perhaps in the beginning we have (had) the enthusiasm about doing them because the topics are very interesting and useful, but later on, our motivation decreased. When we focus on the language skills, we couldn't focus on the business knowledge and skills too much, and after the lesson, I don't (didn't) master those knowledge and skills quite well. Perhaps our English skills will be improved in this way, but I don't think we can learn business knowledge and skills very well.

X: Is the programme easy for you? What do you think are the barriers which hinder your progression in the programme?

G: No, it is hard. We didn't learn any business knowledge and skills before, so it's really hard for me to understand those articles. Sometimes there are four or five new words in a sentence. I couldn't get the meaning at all. Although we did a lot of language work on these articles, as a result I got the language of them, but I didn't learn how to calculate in some complicated business cases. Over and over again, I became a bit frustrated by the progress of this programme.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

G: It's no doubt our language proficiencies would be improved a lot in this programme. And we did learn some business knowledge and skills, but we learned very little in this programme, to be honest.

X: Did your tests' results tell the same story?

G: Generally, they did. My scores on the language skills are (were) not bad, but on the business knowledge and problem solving skills are (were) poor, especially those questions need mathematical skills. But sometimes I didn't get good results on my writing and speaking either.

X: What's the reason do you think led to your poor performance on writing and speaking?

G: Because sometimes I've got nothing to write, nothing to speak because I learned very little about that business topic in the lecture.

X: I see. Are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

G: This style of multiple tests is much better than our other final-term examinations. It is more topics focused. And we don't have to spend much time to prepare lots of things for the exams. However, we were tested on our understanding and skills on the business models, as I said before, we didn't learn them quite well, so it's a big challenge for us in these two parts.

X: How would we improve the programme to help you to achieve a better academic outcome?

G: The programme may be designed in business directions. I mean we could learn these materials based on the business knowledge structure instead of language structure, and we could develop more on the business skills than the language skills. And it could be better if you talk more about business knowledge and number (numerical) skills. Otherwise, I am not able to manage those difficult questions in the tests.

(the end)

The Third interview – Student H (H) Interviewer (X)

X: This programme has got one week left, and I really appreciate that you stick to the end of the programme. Could you tell me the positives and negatives of the content-based group you are involved in?

H: It's my pleasure to be involved in this programme. It's a high-levelled business course in English. The programme gave us much knowledge on economics, management, accounting and so on. We learned how to resolve a business problem with some mathematical skills. This is a very professional course. You showed us something we never learned before. We learned some business vocabularies and expressions, and our English was improved as well.

X: What about negatives?

H: First perhaps we didn't get enough help with our poor English to understand these business topics. Second, we felt very tired because it required us to concentrate on your speech all the time in the class, and meantime we need to understand those business knowledge. Last but not least, we have only shown those business models and the some formats to solve the business problems, but we don't have enough time to practice them.

X: Is the programme hard for you? What do you think are the barriers which hinder your progression in the programme?

H: It's very hard for me especially when the programme just started. I gradually get used to your English when the programme carried on. The programme might be a little easier for me to follow now compared with two months ago.

X: That's pretty good.

H: But there are too many new vocabularies and business jargons we need to learn. I couldn't get the business knowledge because of these language barriers. Moreover, when you presented some business models and cases which required maths skills, I couldn't follow them closely because they are really hard. Even if you taught them in Chinese, I'm not sure if I could manage them or not.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

H: I think the programme more or less played an active role in improving our English skills, business knowledge and problem (solving) skills. At least we get more opportunities to learn English. I don't (didn't) have any business knowledge and skills before; but I know some of them now, though I didn't learn them quite well.

X: Did your tests' results tell the same story?

H: I don't know. I'm not good at words, so if the tests are more based on writing some ideas, my marks were very poor. But if there are some calculations, my mark is ok. I remember the two tests, one is the balance sheet and income statement, the other one is Net Present Value, I nearly got the full marks on the problem solving skills.

X: Well done! Are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

H: The format?

X: Yes, the multiple tests instead of single final tests and those questions type.

H: Oh, (being) tested for many times is better than (being) tested once. Because in thin way, I know what I learned, what (I) need to understand and master and what are tested every time. I don't need to guess what topic are you (you are) to test us, and I still have the chance to do better if I failed one test. There are some multiple choices, gap filling questions, short answer questions, essay questions, (and) speaking to test our different abilities (skills). So the results could tell us are we (we are) good at these things on the whole.

X: How would we improve the programme to help you to achieve a better academic outcome?

H: I think this kind of programme is similar to those courses in an overseas business school. But our English is not good enough at present. So if you can teach us in a simpler way, I mean if you can speak some simpler English, explain some business vocabularies in more details, (and) give us some text about the topics to read in the class, I guess we'll improve more in all the areas.

(the end)

The Third interview – Student I (I) Interviewer (X)

X: This programme has got one week left, and I really appreciate that you stick to the end of the programme. Could you tell me the positives and negatives of the task-based group you are involved in?

I: The programme is quite interesting and effective. We learned much professional and useful business knowledge and skills while we are (were) doing various tasks in the classroom. And most importantly, I find those difficult knowledge and skills not that hard to learn anymore. We feel that you didn't teach us by yourself, but just lead (led) us the way to acquiring those knowledge and skills by pair work, group work, (and) play. You gave us very clear instructions to do those tasks and help us with some business vocabularies and expressions in the activities.

X: What about negatives?

I: If there has to be some, I don't know how you could make sure every student in the classroom worked equivalently hard on your tasks. Sometimes (when) I was in the group work, I would like to make some contribution, but you know, I'm not that outgoing and eloquent, so I did not have enough time to express myself. And those active group members decide everything of our tasks. So I didn't learn as much as they did. And also sometimes if you gave us a challenging task, everyone shirked the duty and didn't collaborate with each other as a team. Perhaps in the first a couple of weeks, most of us are quite into those activities, but slowly we are getting lazy.

X: Is the programme hard for you? What do you think are the barriers which hinder your progression in the programme?

I: No, I don't it's hard by and large. When I was involved in the activities, I just found it's hard for me come up with appropriate business jargons to express myself accurately. And as we get (got) these knowledge step by step when completing the tasks, these knowledge points are scattered, we need to put them together to see a clear picture of these knowledge. You know the tests always asked us to illustrate the links between the knowledge points on that topic.

X: To what extent did your following academic outcomes benefit from the programme: Language proficiencies, business knowledge and problem solving skills?

I: I learned some business knowledge and problem solving skills, apparently. But I didn't get more chances to practice my English in communication when we are (were) doing the activities. And I think our listening reading and writing were not enormously influenced by the programme. Because you didn't talk too much in the classroom, and you didn't give us any essay writing tasks. And the materials you gave us were easy to understand, so it doesn't (didn't) require high reading skills.

X: Did your tests' results tell the same story?

I: Perhaps not. (laugh) My performances on listening, reading, writing and speaking were satisfactory. However, my performance on those numerical problem solving skills were really poor. I'm not good at maths, and I hate numbers and calculations. I can't do them at all. Sometimes I have already known the way how to work out the results, but if were to do them in the tests, I would be lost again.

X: Are you happy with the format and content of these multiple tests? Are they closely linked to what you learn from the programme?

I: It's our first time to do this type of multiple tests. Are we evaluated based on our average performance on each test?

X: Exactly.

I: They tested our language skills, business knowledge and problem solving skills separately with different types of questions. They tested us exact knowledge we learn(ed) in the lesson. They tested us exact problem solving skills we learn (ed) in the lesson. All the topics of language questions are linked the contents we learned in the lesson. They did not test us anything we didn't learn. I think they really reflected our learning outcomes from different areas from the programme.

X: How would we improve the programme to help you to achieve a better academic outcome?

H: Um… You might add some reading and writing tasks on the activities, and tell us how to use correct words and phrases to express ourselves on that topic. You might spend more time to help us to summarise the business knowledge and master the business skills. And…clarify everyone's responsibility in the activities. And if possible, evaluate our academic outcomes upon our performances in the team work like Assessment Centre.

(the end)

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